THE NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE, HORTICULTURE, AND KINDRED ARTS.

NEW SERIES. Boston, April, 1869. VOL. III.---NO. 4.

R. P. EATON & CO., PUBLISHERS, OFFICE, 34 MERCHANTS' ROW. MONTHLY. SIMON BROWN, S. FLETCHER, } EDITORS.

ASPECTS AND DUTIES OF APRIL.

Off where the steep bank fronts the southern sky,
By lanes or brooks where sunbeams love to lie,
A cowslip-peep will open, faintly coy,
Soon seen and gathered by a wandering boy.—*Clare.*

OF ALL the months, April is the most inspiring. Not because it has the most pleasing character, the softest airs, the loveliest flowers and richest perfumes. Not these, nor pleasant walks, nor charming rural drives. The word *April* means "to open." It is the month when the earth *opens* her bosom again, and invites the husbandman forth to cast seed into her warm embrace, where it shall fructify and bear him fruit abundantly. It is juvenile and fickle, we admit. "Fickle as a fond maiden with her first lover; coying it with the young sun till he withdraws his beams from her, and then weeping till she gets them back again." April puts a spirit of youth in everything. All nature is animated anew. The cocks crow, hens cackle, cows low and lambs bleat. The earth puts on a new mantle. Hardy flowers peep out in the moist valleys, and those more tender, in sunny nooks on the hills, flanked by the green and tender young grass. The mosses on the rocks throw out their tiny blossoms, and try to perfect themselves and thus continue their kind, before May suns may be too fervent for them.

There is a time for all things; so in April there is a *best* time to do certain things which are peculiarly ours, as farmers, to do. One is to complete a plan—if not already done—for all the operations of our spring and summer work, so that there shall be no doubting or halting as to what lands are to be ploughed, what crops put in, what buildings or fences erected or repaired, and what help shall be depended upon to perform the work. Some may say that "sufficient unto the day is the evil thereof." But labor is *not* an evil; it is a *blessing*, and that blessing may be greatly multiplied to each one of us by finding it in a well-regulated business,—in a complete system in all our labors. Then each duty may be performed in its own appropriate time, and its work done and out of the way of other work that will naturally succeed it.

Another duty is to look to the *condition of the highways*, and see that all labor needed upon them is done in the month of April. Most of the highway surveyors are farmers. They do not disturb the soil of their fields while in a wet and heavy state, because they know it will have a strong tendency to make it compact, and greatly increase the labor of cultivating it through the summer. For this reason, therefore, April is the time to repair the highways. A dollar judiciously expended

upon a road now, will be worth as much as two dollars will if expended upon it in June, or at any time when the soil is in a dry and mealy condition. Besides this, the opportunity in early April is more favorable for the farmer than in May or June. His business is not so pressing, his teams are stronger and can be better spared from the farm. When the work is done in April, the earth is not only moist on the surface, but the moisture extends through it all for several feet downward, so that it has a strong tendency in itself to pack, and when driven over by animals and teams, soon becomes so firm as to make it hard and even through all the coming summer. If left to the last of May or into June, gravel or sand hauled upon the road is displaced by every passing team, and thus becomes a perpetual nuisance and an unnecessary source of cost.

Another April duty, and one sadly neglected by many farmers, is that of getting manures into a position where they can be overhauled, moderately fermented and made fine. They do not reflect that hard lumps of earth are of little more consequence to plants than so many stones. Roots only take in nourishment that is in a state of solution. That is, the soil itself should be in *fine* particles and the manure that is added in same condition; then when water percolates through them it extracts their nutritive properties and holds them in solution. The soil and manure being fine and loose, the tender roots of plants easily find their way among them, and at the same time the moisture which has extracted nutrition from them is holding it for the roots as they pass along. It would seem from this that one cord of manure in a fine condition would be of more service than two or three would in a coarse, lumpy state. Those, therefore, who are deficient in the quantity of manure they would like to use, may find relief by examining and testing this matter in this spring's operation on their farms. There are many other things which can better be done in *April* than at any other time. The observing farmer will see that they are not postponed until "another time."

—Equal quantities of powdered alum and common salt, well mixed together will often cure the toothache when it will not yield to most other remedies.

HORSE BREEDING IN VERMONT.

Did you ever look into the pigeon holes of an editor, or realize how many excellent articles he reads over but is obliged to defer their publication to a more convenient season. The essay on Raising Horses by Hon. T. S. Lang, read at the Maine Farmers' Convention was laid aside for this purpose, and now we have in the *Rutland Herald* an essay on Horses read at the late annual meeting of the Vermont State Agricultural Society, by L. T. Tucker, Esq., of South Royalton, Vt., in which he considers, 1. What Vermont Horses have been; 2. What they now are; 3. What they ought to be; 4. How to make them such. We regret our inability to publish either of these documents entire, at present.

In a late discussion of the subject of horses by the Westminster, Vt., Farmers' Club, Mr. W. R. Kimball stated that "twenty years ago our horses were two sizes larger than now." Mr. Tucker says "most of the stallions now in use lack blood as well as speed; our mares no better, no, not as good." Formerly we showed to the world the best horses to be found; now others are in advance of us, and control the market." In concluding his address Mr. Tucker submits the following suggestions for the improvement in the breed of horses, which are very much the same as those made several years since by Mr. Meech, of Shelburn.

First, by any and all means, we must labor individually and by associations, to retain our best stock that we now have. Much of it is good. Had we for the past fifteen years retained our best mares for breeders, and with them now had standing in Vermont Sherman's Black Hawk, Paul Clifford, Stockbridge Chief, Peck's Black Hawk, Ethan Allen, Young Columbus, Young Morrill, Draco, Fearnaught, and Draco Prince, the value of our stock in the market would be double what it is.

Breeder's associations in every county properly organized for this purpose, could do much toward working a reform in this respect. Sheep and cattle men well understood that to retain the superiority of the flock or herd the best animals must not be sold at any price. It is just so with horses.

In addition to this reform, we need and *must have* a horse-breeding establishment in the State equal to that of the late Alexander, near Louisville, Kentucky.

On such a place we want two or more of the best English Thoroughbred Stallions in the world. Also forty to fifty of the very best mares of this breed that can be found. Also two or more of the best bred and fastest trotting stallions to be had, and some fifty of our best bred trotting mares. These English horses should be kept pure, while at the same time much value could be added to our native stock by judicious crosses.

There needs from one to two hundred thousand dollars capital to start and run it. An income

cannot be had from it much short of six, eight or ten years.

An experienced breeder, and the very best judge of horses to be found, should be at the head as manager of breeding and fitting for exhibition and sale.

On the place should be a park for driving, second to none in the world. The best of stables should be there, and nice paddocks for the colts to run in and grow in their freedom and safety.

This place should be kept by a kind, genial, sensible man. One who is, and will be, honest, everywhere and at all times.

To aid us further, we should, at our annual fairs, have our organization so perfected as to reach within every county in the State, and call out the best horses for exhibition.

With such a state of things as this in Vermont, who can doubt but that our stock would be equal to, if not the best, in all our country in a very few years? There cannot be a shadow of doubt about it. Neither can there be any doubt but that the world would again come to our State with cash to pay for our horses.

Where is the wealthy son of Vermont to take hold of this in earnest, and thereby confer a substantial and lasting benefit upon our State?

For the New England Farmer.

THE GARDEN IN APRIL.

Little is gained, but much vexation and disappointment result often from planting tender vegetables in the garden or elsewhere, too early. The ground must have time to thaw, settle and become warm; and if the garden is naturally well drained, or has been underdrained thoroughly, these conditions are much earlier attained than otherwise. Having so often urged the necessity or importance and economy of a *good* garden, in connection with the farm and household, it is unnecessary to further allude to it here. Those who have enjoyed the products of a well managed garden will not need further arguments to convince them of its importance. Those who have neglected the garden for other general farm crops and products, are assured that a good garden *will pay*,—pay in more than one way, too. The requisites are a good sheltered, warm location, with fair exposure to the warm rays of the morning and mid-day sun, warm, rich, deep, well fined soil, with plenty of good manure, and a spirit of energy and perseverance not to be discouraged at trifles, nor inclined to put off a present duty to a more convenient time. It is very easy to test the correctness of this statement by trying a garden, as recommended, and keeping a rigid debt and credit account with it,—crediting everything taken from it at its market value, and charging everything laid out on it; and at the end of the year compare the account with that of any field crop, without taking into the account the greater degree of health you and your family have enjoyed from having vegetables, &c., fresh from the garden, instead of those bought in the market after becoming wilted and losing their freshness, or from having been raised by yourself instead of others.

Asparagus.—Rake off the coarser winter covering of manure, sow a sprinkling of salt or brine over the bed, and fork in the whole, working the surface mellow without injuring the crowns of the plants. For new beds make the soil rich, work it deep, and plant out good strong one-year-old roots, one foot apart each way, covering the crowns three inches deep with rich fine soil.

Bean Poles and Pea Brush should have been gotten in readiness before this; but if not done, lose no time in providing all that will be needed; as soon the sap will flow and the leaves will grow on brush after they are cut, and when stuck they have an unsightly look.

Beets.—Early Bassano may be sown as soon as the ground will admit, as the plant is hardy and will endure a considerable degree of frost, and the seed is slow to germinate. The seed of the beet is not that which usually passes as the seed, which in reality is a kind of woody envelop or cup enclosing several seeds; for this reason, it is, we often find several plants close together apparently from one seed; hence the remark "my beet seed grew five or six plants from one seed." The seed should be sown thinly in drills eighteen inches apart and covered half an inch with fine soil.

Cabbage.—Seed may be sown in the hot-bed, or in boxes, set in the kitchen window, or in cold frames; and late in the month sowings may be made in the open ground. Plants grown in the hot-bed, or wintered in cold frames, should be hardened off and transplanted as soon as it will do; prick out from the hot-bed into cold frames or pots and harden, so as to set in the open ground as soon as the weather will admit. Properly hardened and grown, they will endure quite a degree of frost.

Cauliflower.—Early plants in the hot-bed may be transplanted into cold frames or potted and hardened so as to set in the open ground when the weather becomes settled. The more judicious hardening they have, in the mean time, the better.

Cold Frames.—These are oftentimes substituted for the hot-bed and are advantageous in starting many plants under, that will not endure the open air yet, and require a long season; but they require care in ventilating, &c.

Cress.—Sow in rows six inches apart, in warm well prepared soil; sprinkle the plants with ashes and plaster mixed, to keep insects off.

Draining.—Many gardens in the country will pay well for underdraining. Soils are benefitted in many ways by underdaining. Thorough underdraining is often equivalent to an entire change of soil and climate, making the soil more porous, sweet, mellow, warm, &c. A single drain will often work wonders in a garden, and it will cost but little to try the experiment.

HOT-BED.—With most farmers, early this month will be soon enough to start the hot-bed. Modes of preparing and managing them have heretofore been given and need not now be repeated. Sow seeds for early and tender plants, and those requiring a long season, such as lettuce, radishes, egg plants, &c.

ONIONS.—Sow seeds in well prepared beds and ground as soon as the soil will work without sticking to the tools. Wood ashes makes one of the best fertilizers for the onion. Manure with any kind of weed or foreign seed in it is to be especially avoided. Sow in drills one foot apart; use seed of last season's growth only, as older will disappoint you.

PARSLEY.—The seed is a long time coming up and should be sown early. It makes a very pretty edging for beds or borders, &c.

PARSNIPS.—Sow in rich, deep soil, in drills eighteen inches apart, as soon as the soil will admit. Last year's growth of seed should be used.

PEAS.—Plant early varieties in well prepared soil in good heart; dry, warm soil is the best. The pea plant is seldom injured by spring frosts,—will often endure to be covered with a late snow after coming up, as I know by experience and frequent observation.

SEED.—Set out cabbage, parsnips, carrots, onions, turnips and other roots in rich soil, to grow seed for another year, where they will meet the notice daily, that they may have proper care and the seed be gathered at the right time. Some seeds are better grown in every garden than to depend upon the market therefor, as adulteration, &c. is too frequent. Some growers and dealers are to be implicitly relied upon; but I am sorry to say all are not.

I have always found it perfectly safe in planting beans, cucumbers, melons and the like, "to make haste slowly," and retain the seed in the house till well into May, when we have settled warm weather.

WM. H. WHITE.

South Windsor, Conn., 1869.

WOOL GROWERS OF THE WEST.—The adjourned winter meeting of the Northwestern Wool-growers and Sheep-breeders Association was held at Turner's Junction, Ill., Feb. 16. The Annual Sheep Fair and Shearing is to be held at Belvidere, Ill., May 18-20. Resolutions were passed in favor of the continuation of the present duties on foreign wool; against the renewal of the reciprocity treaty; in favor of a joint exhibition of wools and woolens in the West, and also of that in New York, in 1869. The *Western Rural* says the meeting was very interesting and showed that the breeders of sheep in the Northwest are not all disheatened. The following topics for the evening discussions at the Shearing Fair were announced:—Feeding and Care of Sheep; Time of Lambing; Time of Shearing and Mode of Preparing Wool for Market.

PREPARATION OF THE SOIL.

AMONG the objects to be attained in the preparation of the soil for the reception of the seed, two things are chiefly to be attended to,—the mechanical condition of the soil, and a proper supply of plant food. The first is effected mainly by the use of the plough, the harrow, the spade and the rake.

Those ploughs do their work best which turn the furrows evenly and leave them cracked and broken, so that the air and rain can penetrate through their entire thickness. The short and convex mould-board does this most effectually in most soils.

The proper depth of ploughing must depend much upon the nature of the soil, and the treatment it is to receive. If it is naturally deep, or if it is to be heavily manured, a deeper ploughing is proper than in a shallow soil, or where a lighter manuring is to follow. A well pulverized seed bed, as deep as the roots ordinarily penetrate, is the best safeguard against excessive wet or extreme drought. In the one case it allows the water to reach below the roots of the young plants, and in the other it enables the roots to penetrate more deeply in search of needed moisture, and causes the moisture to rise by capillary attraction from below. When the furrow has been turned, especially on grass land or sod, the harrow or cultivator should follow until the soil is fine and friable to as great a depth as possible without displacing the sod. On a compact or clayey soil the Pepperel harrow does good work. Where this is not at hand, the cultivator is better than the common square-toothed harrow.

Then apply the manure and work it in with the harrow, the cultivator or horse-plough until it is thoroughly incorporated with the soil. This is an important matter in the preparation of the soil. If it is placed below the furrow,

or left upon the surface to be dried and dissipated by the sun and air, or in unbroken masses in the soil, the wants of the plant are not met. We should not be satisfied until the manure is thoroughly mixed with the soil. Then with the soil well pulverized and disintegrated and thoroughly mixed with the manure, we have done what we can to prepare it for the reception of the seed. The season and future cultivation must do the rest.

But in pulverizing the soil and fitting it for the seed, we may avail ourselves of the assistance of certain natural forces. When the soil is tolerably dry it crumbles more readily, has less tenacity, and its particles are more easily separated. If the plough is put into a heavy, wet soil it converts it into mortar and presses its particles more compactly together.

A soil containing much clay should never be ploughed while it is wet. Lumps and masses are formed that will scarcely be broken up and separated during the entire season. Land is frequently injured by inattention to this circumstance.

We said that the furrows should be left in a cracked and broken condition by the plough. If this is done in the autumn the water and snow penetrate the whole thickness of the furrow. Now every one knows that when water freezes it expands. By this expansion of water in the soil its particles are separated from each other, and the whole mass is loosened and disintegrated. This is one great advantage of ploughing in the fall. The freezing and thawing of the winter and spring greatly assist in pulverizing compact soils, and the farmer who neglects to avail himself of this aid loses an important advantage which nature offers him.

If the soil is a sandy loam, fall ploughing is not so important. Indeed many good farmers prefer to plough such soil in the spring and plant as soon as possible after ploughing.

If green, uncomposted manure is to be applied to an old soil, we prefer to plough it in, late in the fall, especially where the land is level. In this way the manure becomes evenly diffused and mixed with the soil, and it will be light and friable in the spring, and admits of being worked earlier. In a soil that is to be used for garden crops or for roots, we think there is no better mode of preparing it than this. If a little fine compost or some artificial manure is applied to the surface and worked in after the spring ploughing, with the harrow or rake, we have a seed bed of the very best description; and indeed for wheat or hoed crops we know of no better plan. On most soils, we have thus the two essential conditions required,—a well broken and pulverized soil, and plant food evenly mixed and within reach of the young plants.

But some one will object that this preparation requires too much time and labor. Well, then, apply your labor and manure to a less breadth, to fewer acres, and if the work is done thoroughly, you will obtain a larger crop and leave the land in a better state for succeeding crops than if the same amount of labor and manure was given to a larger surface, with imperfect cultivation.

We have said nothing about draining as a means of preparing the soil. This would require a chapter by itself. Where this has been properly done, and the conditions above spoken of are observed, we have the foundation laid for that *high culture* on which our success in farming in New England must hereafter depend. The importance of suitable preparation of the soil is not sufficiently impressed upon the minds of most farmers. It is quite as important as the subsequent cultivation, which seems in general better understood. But upon well prepared soil the after cultivation is much easier and more effective. The cultivator and the hoe work more evenly and more rapidly.

The market gardeners understand this matter. We see them ploughing in manure in the fall, even on light land from which two or three crops have been taken, and which has been constantly cultivated from the early spring. The larger crops produced on a garden soil are not due entirely to the larger quantities of manure applied, but in great measure to the constant use of the plough and spade, and the intimate mixing of the manure with the soil. We not only plough our kitchen gardens deeply but we follow the plough with the spade and the rake. The results we daily witness, and it is only by such preparation of the soil, that our fields will be converted into gardens.

—Three farmers came with their teams from the interior of Minnesota to the river. One hauled goods for a merchant and got $40, one had 450 pounds of cheese, and got $80, and the other had 20 bushels of wheat which he sold for $30.

THE DAIRY REGION IN WORCESTER COUNTY.

DURING our late visit into the dairy region of Worcester County, to attend the annual meeting of the *Massachusetts Cheese Manufacturers' Association* at Barre, we found opportunity to look at several fine herds of cattle in their *winter* quarters, and to make many inquiries in relation to the manner in which they are fed and tended.

A statement of the practice adhered to by one dairyman will show the general rule in that region, as far as we had opportunity to learn. Partaking of the hospitality of Mr. J. T. ELLSWORTH, enabled us to occupy such spare time as occurred in looking at his stock with some care, and of having free conversation with him in regard to the manner in which it is fed and tended.

He winters about fifty head of cattle, mostly cows, and a large portion of them grade Shorthorns. Those which have come to maturity, say seven or eight years of age, are of more than medium size whose dressed weight would be seven or eight hundred pounds. They have been bred from *pure* sires, and the best grade dams; dams that have been carefully selected; that is, the best shaped and most promising calves are never sent to the butcher, but preserved for the milk pail and to supply the places made vacant by removing the old cows. They all possess the peculiar characteristics of the *Short-horn* race; the muzzle fine, the face slightly dishing, the eye full and bright, the forehead broad, the throat clean, the ear of medium size, thin and moving quick, the shoulders wide at the tops, brisket broad and low, legs fine and ending with a well rounded foot; the ribs round and full, and running well towards the hips; the back straight from the shoulders to the tail; the hips wide, and level with the back and loins; the rumps wide; tail set on a level with the back, small and tapering. These are only some of the more prominent points, but they *are prominent* in all the best dairy herds in this region. It is curious to find this sameness in passing from one farm to another. In certain instances, one might fancy that some invisible power had transferred the stock at which he had just been looking, into the next neighbor's barn!

Such is a brief description of the animals which are to be fed and tended, and to yield a profit to their owner for the cost and care bestowed upon them. Mr. E. feeds in the spring but twice each day. That is, they are fed for about two hours in the morning, *a little at a time*, at the end of which period they have generally taken all the food they care for. If the weather is fair they are then turned into a pasture convenient to the barn, as soon as the ground is settled, where they remain through all the middle of the day. This course is commenced by the first or middle of March, according to the season. Mr. ELLSWORTH thinks this is highly beneficial to the cows, as they get pure air for several hours in succession, they get exercise in nibbling the short grass, whether dry or green, and derive some unexplainable good from coming to the *bare ground*, either in the smelling of it or in some other way.

After enjoying their recess in the pasture, they are taken to their stalls, and each cow has six quarts of sliced roots, and as much good hay as they will eat. They are then milked, turned out to drink and then returned to the stable. This is the daily process of *spring* treatment, and all these operations are done at exact times. When the precise time comes, the cows flock about the barn, whether the village bell strikes four or not! If neglected when the proper hour for watering arrives, they express their uneasiness by signs that cannot be mistaken. Habit has become a second nature to them, and that habit cannot be broken in upon with impunity.

When the grass in the pastures has sprung up so as to afford a "fair bite,"—not too rank, for then the cows do not like it so well—they are turned out and allowed to remain all night unless the night is cold or stormy. In the morning, however, the cows are fed in the stable so long as they eat with a relish. He always milks in the barn, and feeds no grain of any kind. Gives salt as much as the cattle will eat at all seasons of the year, but adds very little salt to the hay as it is got in in summer.

How he Manages his Pasture.

One of the most striking features in Mr. E.'s plan of feeding, is in the management of the pastures. We take all the more pleasure in recording it, because a different course from his is so common with most farmers, and so in-

jurious to their interests. He divides his pastures so that the stock goes into a fresh lot once in each four days, remaining in the pasture through night and day. In this arrangement he is able to allow about eight days of uninterrupted growth to the grass, so that the roots are strengthened, strike deeper into the soil, and thus sustain the herbage through dry periods. The feed is consequently thick and fresh, and as many cows are put upon it as will prevent a too luxuriant growth; for he does not believe that *rank* feed is good for making milk.

He Plants Southern Corn.

To meet the contingencies of a dry time, he plants Southern corn, beginning about the 10th of May, and continues to plant each week until the first of July. By these frequent plantings, he is able to commence feeding it out about the first of August, and has it fresh and juicy until frosts come. Feeds sparingly at first and increases the quantity as the cows become accustomed to it. Feeds it in the stable twice each day, probably morning and night, as the cows are *always milked in the barn*, although they are in the pasture all night. This fodder corn is grown upon land highly manured, so as to secure a heavy growth that will be juicy when young and tender. This being added to the usual rotation in grazing, the pastures are not reduced, and the cows have more time for rumination and rest. He thinks pure, running water of the highest importance in making milk, and has secured it in each of his pastures. When the fodder corn is exhausted, he feeds green rowen morning and evening, as much as the cows will eat, though they still go to their pastures as usual. Another object in view, in feeding the fodder corn and rowen, is, not to reduce the pastures so much that he cannot keep them in good condition by the use of plaster and wood ashes. He finds no difficulty in keeping the mowing lands in good heart, but some in keeping up a proper fertility in the pastures.

Fall Feeding and Drying the Cows.

When the grass has become brown by frequent frosts in the mowing lots, he turns the cows upon them, but continues to feed liberally in their stalls, on roots, rowen and English hay, and continues to do so as long as they yield a fair flow of milk. When this ceases, and it is time for drying them, he feeds moderately on a poor quality of food, and examines their bags from day to day to see that they are in proper condition. This care he will not leave to any other person, as it is one which demands a *certainty* of attention.

Many of the numerous cases of difficulties in the udder of cows, undoubtedly grow out of inattention in this particular.

How he Avoids Swelled Udder.

Two things are habitually done by many farmers to their cows, which Mr. Ellsworth most carefully avoids doing. One of these is, to feed a cow highly for some days just before she is expected to drop her calf, and the other —which is still more injurious,—to give her meal, or other stimulating food, immediately after she calves! Neither of these should ever be done. For a period of one week before calving, he withholds all food that would tend to make milk fast, watering freely, a little at a time, immediately before and after that event takes place. For twenty-four hours after the calf is dropped, gives nothing but a little dry hay, and no grain until the cow and udder are all right. Washes a swelled bag with *warm*, instead of cold water. Feeds a weak cow with oats, as they stimulate, but do not heat as corn meal does. Allows the cows to go dry nine to eleven weeks, as cow and calf demand that time of rest. Under such circumstances the cows are strong and their calves healthy.

How he Tends and Feeds in Winter.

When the cows are no longer allowed to go to the fields, they are regularly fed twice each twenty-four hours. The first feeding commences as soon as it is sufficiently light in the morning to attend to the work. They are fed on hay a little at a time, and the poorest quality used is given them first. In about two hours they will eat all they care for; but before they are all through, watering them is commenced by turning out as many as can drink at once, while some one stands by them to prevent quarrelling or accidents. They are then returned, and other sets follow until all have drank. The leantos are now all cleaned out, the cows are full and usually lie down and chew their cuds until half past two, P. M., when the same process is gone through with again, and they have nothing more to eat until the next morning. Thus the cow has had two good meals, has drank twice, and has plenty of leisure to convert a portion of what she has

taken into the desired product—a new calf, milk or flesh. After the cows come into milk they require a longer time in eating, and he feeds more liberally, giving a cow for some time eight quarts of sliced roots instead of six quarts.

His Cows are always Healthy.

In going through his stalls we remarked that his cows had the appearance of perfect health, and a corresponding vigor. He replied, "My cows are always healthy; I have not lost one for many years, nor had a case of garget or abortion among them, they come in with great regularity, are kind mothers, keep in good flesh and last a long time. I have them drop their calves in February and March. I raise my own cows, and do not begin to call them old until they have reached a dozen years."

We observed that the cows were tied in stanchions and the oxen and calves in chains. Mr. Ellsworth is strongly in favor of feeding roots to his cattle, and imputes much of his success in making milk to their use.

GAMBLING ON THE RACE COURSE.

The leading editorial of the *Turf, Field and Farm* of February 12, commences with the remark:—

"We have seen man defined as an animal that made bets. . . . In all nations and climes we find him the sole proposer and acceptor of wagers; no matter how rude or polished, savage or civilized, ignorant or learned, all have the same betting proclivities."

The editor then assumes that all the evils which result from gambling are chargeable to "the perversion of this principle, and not to the principle itself," and that as men "cannot be legislated out of their smaller vices," all that the moralist or legislator can do is to "direct it so that as little injury as possible may arise from the gratification of the propensity." The article closes as follows:—

A very great majority of betters [on the turf] content themselves by the investment of a sum that will not be felt, if lost, while it greatly enhances the pleasure of seeing the race run. As long as men only venture what they can afford to lose, and do not take risks incompatible with the duties they owe to themselves or families, the injury will be very slight, if injury there is. But "plunging" cannot be too strongly reprobated, and those who have the true welfare of the turf at heart should use every endeavor to restrain that spirit that prompts large outlays.

The whole argument is an ingenious and well put defence of betting, without which "the pleasure of seeing the race" would become stale, flat and unprofitable; but it is altogether unsatisfactory to our mind, and we hope it will be so to the managers of agricultural fairs who are solicited to co-operate with the friends of the turf. We believe that gambling, thieving, pool-selling and many other "smaller vices" of poor human nature should be restrained, not merely regulated.

NEW PUBLICATIONS.

Essex Agricultural Society.

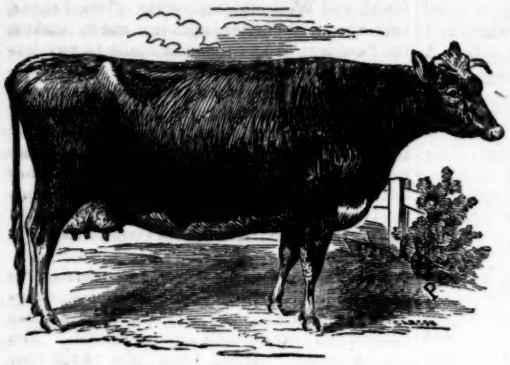
The Transactions of this old Society for the year 1868 are before us in a neat pamphlet of 148 pages. It was established at Cyrus Cummings' tavern in Topsfield, on Monday the 16th day of February, 1816, fifty-three years ago. Timothy Pickering (of excellent memory) was chosen President. The address, last fall, was by Dr. Loring of Salem, and recounts the history of the Society, giving the names of its principal officers, and those in it who have been distinguished in public life, or who have taken an active and influential part in the affairs of the Society. The names of all the orators, or persons who have formally addressed the Society at its annual public meetings, are given, together with some striking remarks, or opinions, expressed by them, which showed that their minds were critical and far-seeing, reaching forward after improvements in the art. For instance: Col. Pickering addressed the Society in 1829, and, in speaking of ploughs said,—"It is not so much the *weight* as the *shape* of a plough which makes it of easier or harder draft; and this depends chiefly on the mould-board." He also urged keeping manure "under cover." Some striking apothegm, full of practical value, like that which we have quoted, is given from nearly all the pages of the orators.

The Transactions contain an unusual number of good reports of committees, and statements of contributors; and this is an excellence which will soon distinguish any agricultural society.

Among these reports is one on Fat Cattle, by Francis Dodge; a long one on Swine, by Ben. Perley Poore; one on Ploughing by Boys under eighteen years, by Joseph How; one on Apples, by T. C. Thurlow; one on Vegetables, by Allen W. Dodge; one on Farms, by Chas. P. Preston. These are followed by a dissertation on Special or Concentrated Fertilizers, by Dr. James R. Nichols of Haverhill; on the Agriculture of Essex County, by W. A. Durant, of Lawrence and one on How to Manage the Henroop, by Gilbert L. Streeter, of Salem.

This volume is one of the best that has been issued in the State for some years. It bears the marks of the patient industry and practical knowledge of its indefatigable Secretary, Mr. Preston.

—Last year's crop of sugar and molasses in Indiana is worth twenty million dollars. It will be larger and more valuable this year.



THE JERSEY COW.

In the account of our visit to the farm of Alvin Adams, Esq., published in the FARMER of Jan. 23, we spoke of his beautiful herd of imported Jersey cattle, and quoted the admirably drawn description of the race from Mr. Allen's book on *American Cattle*. To complete that description we this week borrow from the same source a fine cut of the Jersey cow. Mr. Allen says that, being natives of a milder climate than ours, the Jerseys are more delicate in constitution and require good shelter and food. They will not *rough* it so well as our common cows or some of the English breeds; but they will well repay all the care given them, and should not be neglected. The Jersey is a milking cow, and for nothing else should the race ever be bred. The distinguishing quality for which the Jersey is prized, is the marked richness and deep yellow color of her milk; yet it is moderate in quantity—eight to twelve quarts a day being a good yield in the height of her season—but that wonderfully rich in cream and butter. It is claimed that one-half or less of the Jersey milk mixed with that of common cows wonderfully improves the color and texture of the butter produced, and it is also asserted by some that the genuine gilt-edged butter of our market reports can be manufactured only from the milk of the Jersey cow. The race was originally from Normandy, France.

For the New England Farmer.

CAN WE GROW WHEAT?

In the monthly FARMER for January, I notice an article with the above caption, also a request for all New England farmers who have been successful wheat growers to speak out. Now I am not a resident of New England, but of Eastern New York, where the soil, climate, &c., are decidedly New Englandish, and as I have for the past fifteen years *succeeded* in raising all the wheat consumed in my own family, and sometimes a little to spare, I will give you my answer to the above query.

I say emphatically, yes, we can grow wheat. It requires no more skill, no richer land, nor more labor to raise an acre of good wheat than one of good corn. In fact, on land ordinarily rich a good crop of wheat can be grown with less manure than an equally good crop of corn.

Wheat has three enemies here at the East, viz., winter or spring killing, rust and weevil.

The first can be prevented in several ways. First sow wheat on dry land, as water standing on top of the ground and freezing is very destructive to it; and if the land is smooth enough to admit of it, drill it in, so as to get it well into the ground, thereby resisting the action of the frost. It is also advisable to sow early so as to ensure a good growth in the fall, thus affording its own protection through the winter. Another good protection is a light coat of straw spread immediately after sowing. The wheat will come up through it and prevent it from being blown off.

The only known preventive of rust is to sow early, so as to have it mature early, and to sow on high land. In fact, wheat does better on high than low land, whether attacked by the rust or not.

The weevil does not trouble wheat much of late years, especially on high land.

I have practiced two ways of raising winter wheat. First, manure the land and plant to corn, then sow to oats, and as soon as they are harvested plough the land carefully and give it a good top-dressing of fine manure or compost, then roll the wheat in lime, plaster and salt; in the proportion of two bushels of slacked lime, two of plaster, and one-half bushel of fine salt, sow and harrow all in together. If the land is liable to heave, I put on a thin coat of wheat straw as soon as harrowed. The other plan is to plough in a good crop of clover in June, and the middle of August plough again and drill in the wheat, sowing on the lime and plaster in the spring. I usually do this way when I do not have a supply of manure to top-dress with. I always seed my land in wheat.

One thing I have observed, that when I sow my wheat on oat stubble and top dress and seed, I always get a good seed, and the next time the land is ploughed it will give better corn than if seeded down the year before with

the oats and no wheat taken from it. I attribute this to the fact that I always get a good seed after wheat when top dressed; whereas I often get very poor catches after oats. A good seed is as good as a coat of manure for the next crop.

I raise a variety called the Soules wheat, a white berry, and for the past eight years the yield has been from fifteen to twenty-four bushels to the acre, averaging 20¼ bushels. The yield this year was twenty-two bushels to the acre. The account stands this year as follows, with two acres:—

Ploughing and harrowing	$ 8 00
Seed, four bushels	12.00
20 loads manure, lime, plaster, &c., $30, half to wheat	15.00
Drawing and spreading	10.00
Straw and putting on	4 00
Harvesting, $5, threshing, $6	11 00
Interest and taxes	13.00
Total	$73.00

Seventy-three dollars for forty-four bushels of wheat is equal to $1.66 per bushel. Five bushels and ten pounds of this wheat gave me a barrel of first quality flour, after tolling. At the cost of my wheat my barrel of flour cost me $8.58, and I have eighty pounds of good feed. Now which is the cheapest to buy flour at $15 per barrel or raise it for half that?

I also raised the present season two acres of spring wheat, of the variety called the Tea wheat, which gave 19½ bushels to the acre. It was raised on corn hills, without manure, sowed very early and soaked in brine then rolled in lime, plaster and salt. The cost of raising this was not as much by thirty-three cents per bushel. It will make just as much flour, but not as white as the winter wheat. The bread, however, is preferred by many, as it is more moist and will keep longer than bread from winter wheat. That the farmers of New England can raise their own flour I am as confident as I am that they have their own hills and mountains. J.

Oak Hill, N. Y., Jan., 1869.

For the New England Farmer.

NOTES ON THE STRAWBERRY.

An Essay read before the Concord Farmers' Club, Dec. 3, 1868, by Frederick G. Pratt.

The increasing production of small fruits in Concord, requires a corresponding increase of attention to them as profitable market crops, and any information whereby we can increase those crops should be heartily received. Although it is but three or four years since small fruits began to be raised for market to any extent in Concord, yet *Concord berries* have already a favorable name in the Boston market.

Strawberries are as yet the principal crop, but raspberries and blackberries will soon be grown here in large quantities. The strawberry grows to perfection in Massachusetts, and while we hear large stories of the yield of this fruit in New Jersey and elsewhere at the South and West, the true state of the case is, that when our berries begin to come to market, the Southern fruit cannot be made to pay expenses, and soon stops coming. I have frequently seen New Jersey berries selling for ten or twelve cents a quart, while "natives" were selling more readily for twenty-five or thirty cents. It is not entirely because they get here in bad order, but because berries are not as good naturally when grown on the hot, sandy lands of New Jersey, as they are on the more gravelly soils and in the cooler climate of New England.

The different varieties of strawberries require different soils. Thus the *Hovey*, originating in a heavy, clay soil, has always done best on the clayey lands around Boston. The *Agriculturist*, starting from light, sandy soil, gives its best results from such light land. And so with all varieties, each having some favorite soil, and on such, or similar land, they do best. This is the reason why so many varieties, highly puffed at first, are soon discarded. Some peculiarity in the soil where they originated made them do well there, and thinking they would do as well elsewhere, the originators, in honest faith, scattered them over the land.

One thing all varieties want, and that is manure. At the same time, they are particular as to the *kind* of manure. Green stable manure is almost poison to the *fruit*, though the *vines* may grow thriftily enough. It will answer much better if old and well decomposed; but ashes or some other manure containing a large amount of potash is the special fertilizer for strawberries.

Perhaps as good a preparation of land as could be devised for strawberries, would be, say, thirty or forty loads of stable manure to the acre, plant to corn, and in the fall plough up again, after putting on a heavy dressing of ashes. Set out the strawberry plants early the next spring, the earlier the better, and keep them entirely free from weeds throughout the season. Most growers allow all the runners to grow the first year, and cut out the paths the next spring. My own experience leads me to think it a better way to stop the running as soon as the plants are thick enough; which I think would be one foot apart for the feebler growing varieties, and as far as one foot and a half for the strongest. I know this makes the plants look as if they were not neighbors the first year, but when they come to blossom and fruit the next season they will cover the ground, and the extra size of the berries will well pay for the extra work in thinning out the plants. The Hovey will bear the closest planting of any I have experimented with, as so many of the stools are barren; but, at the same time, with my present experience, I am by no means sure that even this sort is not often injured by allowing the plants to get too thick.

As to the varieties of strawberries, the number is large. Fuller, in his "Small Fruit Culturist," gives the names of 200 sorts. The truly valuable kinds would be counted by dozens only. Of forty or fifty kinds that I have tried or am trying now, there are but four or five that I find profitable for the market, though several are as good or better for home consumption, but have some defect that spoils them for selling.

I commenced with a nameless variety, probably the Virginia Scarlet,—very nice, but small, which was a fatal defect. I then tried Cutter's Seedling, or Bunce. This is better, but is rather soft, and does not hold out its size very well after the third or fourth picking. As long, however, as one carries the berries himself, this sort can be got to market in good order. It will be some time probably before it is entirely discarded. Then I came acros, the Wilson's Albany, which is *the* strawberrys as the Concord is the grape, for the million. It has been much run down by interested persons, but it steadily holds its own in the market, which is the best test for those who grow to sell. It is firm, handsome, carries well, and if properly ripened, really a good fruit. The plant is healthy and hardy in all localities in which I have tried it,—two valuable qualities better developed in this sort than in any other I have tried. No other bears as large crops or hold its size to the last as well. So far it has been my most profitable variety.

The *Agriculturist* promised well at first, yet in profitableness it has not come up to my expectations. The plants grow well, and give the largest stools of any sort I ever saw. They seem a little tender, and die out without any apparent cause in the winter. While they blossom well, and seem to set perfectly, when we come to pick them, though they are large and handsome, they don't seem to fill up the boxes. I am trying them on lighter soil for another year, and if they don't do better there shall probably discard them.

The *Downer's Prolific* is a promising sort, thrifty and hardy; fruit large and firm, though rather acid.

The *Triomphe de Gand, Fillmore, Jenny Lind, Russell's Golden-Seeded* and some others, I have rejected for various reasons.

Of the *Lady of the Lake, Brighton Pine, Hovey's, New Jersey Scarlet* and *Jucunda* I have good sized beds, and all of these, except perhaps the Hovey, are promising. The Hovey looked extremely well the early part of the season, but the last part the plants looked sickly. The leaves blacken up badly, and there does not seem as much life in the plants as in other varieties on either side of it.

Of a dozen new sorts on trial, some are extremely promising, while a greater portion are extremely unpromising.

—Columbus, Texas, will kill and pack 10,000 to 15,000 beeves this year.

For the New England Farmer.

PLOUGHING.---SEEDING.---HARROWING.

WESTMINSTER, VT., FARMERS' CLUB, Jan. 18, 1869.—*Topic*—"Preparation of the soil for the reception of agricultural seed, best kind of seed to be used, and the mode of cultivation until matured."—(Continued from last meeting.)

N. G. Pierce.—Time is not misspent in well preparing ground for seed. For ploughing I agree with the opinion of the club as expressed last week, that green sward should be turned four to five inches deep, ploughing coarse manure under; but I would put *fine* manure on the top. I plough same ground for oats eight or nine inches, leaving the manure between the two layers of earth. I believe the side-hill *the* plough, as it leaves no dead furrows. For a "good catch" of cereal grain or grass seed, we cannot harrow too much. The best variety of corn I think is a 12-rowed "Canada" kind brought into this vicinity by "Peter Mayo." On three-fourths of an acre he obtained sixty bushels. I planted this variety when I went in for a premium a few years ago, and had 132 bushels. and 25 quarts. The next year I raised upon an acre 100 bushels and 20 quarts. Since which I have raised between eighty and ninety, seventy and eighty, and sixty and seventy bushels per acre. S. C. Underwood planted some of my twelve-rowed, side by side with the "Holden" variety which he has kept pure. Mine yielded from ten to fifteen bushels per acre the most, and is earlier.

John McNeil, (on a plain land farm.)—I don't believe four inches deep will do for me. I plough up six inches and then I have earth enough to work well without harrowing up the sod. I put my coarse strawy manure under the sod. I don't know what to do with it when upon the top of the ground all summer, and believe it is poor economy to leave it there. I harrow my ground well. The "rotary harrow," now in use in Maine, does the work better than anything I ever saw. I like the "Holden" corn better than anything I have ever found.

Henry Floyd—(hill farm.) I plough six inches deep, and put my manure upon the top. By so doing I get better corn, grain and grass than my neighbors who turn their manure under. We must hoe corn well; can hoe three times cheaper than twice; and the third hoeing will add ten to fifteen bushels of corn to the acre, as it fills out better. I agree with others as to advantages of thorough ploughing and harrowing.

Capt. Titcomb.—Four inches is deep enough for ploughing green sward. Harrow well to give root and blade a chance to get ahead of weeds. In these days of *sharp* and *long-cornered* hoes there is danger of severing the little roots and spongioles of the corn, so as to weaken the vigor of the stalk. I would also

caution against running our cultivators down too deep, for the same reason.

Zenas Lord.—I "top" my corn, as it ripens better. I think I lose nothing in fodder, though a little more labor. In dropping seed corn I take pains to scatter the kernels; hoe twice, and do it right. I plough five to six inches deep, turning manure under. I reject the tips and buts of ears for seed. I get usually sixty bushels to the acre. I farm on a small scale.

Mr. Clay—(hill farmer.) I have been here but a short time; formerly lived in "Orange County." There I always had good corn, though my neighbors did not. I ploughed some seven inches deep, and am doing the same here. I am not quite sure it is the best way. Occasionally I have ploughed a portion of a field, alike in other respects, considerably less in depth, and have thought the crop was better. I have thought one reason why corn did not fill out better was we planted too far apart, so that the pollen missed coming in contact with the silk. I think hoeing twice well—the second, about the usual time of the third hoeing—is sufficient.

Horace Goodhue—(hill farmer.) I plough about four inches deep, turning manure under, and use about one-third of a spoonful of compost in the hill, made of hog and horse manure, with the washing and slops of the house sink well mixed up, carted out upon the field in the fall. Another very excellent compost is hen manure mixed with rich earth, putting a small handful in the hill. I am satisfied that corn needs something to stimulate it in the outset. As to seed corn, the better way is to select it from the field from stalks having two or more ears, trace it up and hang it where it will dry well, as it is apt to hurt in the field or before it is husked, if deferred; I shell off tips and buts. I prefer the hinge harrow, with thirty half-inch steel teeth.

Mr. Farewell—(hill farmer.) I plough my manure under six or eight inches. I believe manure loses one-half of its strength by evaporation when left upon the top of the ground. Last year I planted corn taken from the bin and it came up well. I know of no reason why a portion of the seed ear should be rejected. I once heard of a man who, probably from tradition, had been accustomed to reject the tips of the ears for seed, but his hired man by some misconception of his directions planted all tips, and the best piece of corn they ever had was raised. (Applause.)

D. C. Wright—(meadow farmer.) I have tried all kinds of ploughing; have ploughed in fall with "Michigan Double Plough" very deep; then in spring about one-half as deep not turning up the sods; but I think about four inches, for clover land, turned just as you want to plant, is best, turning manure under. It is very important to put some stimulant into the hill to start the corn. I save hen manure in barrels, and in the spring moisten it with the liquid manure from low places in the yard, then mix in plaster. I roll my seed corn in hot soap and plaster, and know it is highly beneficial. I plant three and one-half feet each way, four stalks in a hill. When I plough for oats I plough as deep as I can. I reject the tips of the ears of seed corn, believing the small kernels produce feeble stalks. I select my seed as recommended by Mr. Goodhue.

N. G. Pierce—I don't believe that cultivating deep or late in the season, even though some roots are severed, is any injury to the corn. In one instance, at least, my crop was nearly doubled by late cultivation, as compared with a portion of the same field where such cultivation was omitted.

Mr. Floyd believed the plan of ploughing in manure was based simply on the practice of our fathers. When placed upon the surface the rains and dews prepared it for the immediate use of the plant, but when buried six inches deep it was of little use to the corn, if to any other crop.

Mr Porter Rice, in reply to the President, who asked how it was that he always kept his work ahead so much better than most of his neighbors, said, "I get up earlier."

Capt. Titcomb alluded to the prevalence of smut in corn, and believed it was caused by a superabundance of manure in immediate contact with the roots, which so far stimulated the circulating fluid as to cause the kernels to become ruptured before the enamel is matured. He also spoke of the Goodrich potatoes as a "complete humbug."

NEW ENGLAND AG'L SOCIETY.

After the acceptance of the charter at the late meeting of this society, the following constitution and by-laws, reported by a committee consisting of Davis and Goodman, of Mass., Peirce, of Me., Smyth, of N. H., Baker, of Vt., Perry, of Vt., and Hyde of Conn., was adopted:—

Art. 1st. The officers of the New England Agricultural Society shall consist of a President, Secretary, Treasurer and also a Vice President, from each State, and nine managers from each of the New England States, all of whom shall constitute the Board of Managers of the Society.

Art. 2. The President, Secretary and Treasurer shall be separately chosen by ballot at the annual meeting of the Society, and at the same time the members from the said New England States, present, respectively shall nominate such Vice Presidents and managers to be voted for by the Society.

Art. 3. The President, Vice President, Secretary and Treasurer shall constitute the Executive Committee, and the vote of a majority of the same or a majority in attendance at a meeting regularly called, shall be necessary to authorize all contracts, expenditures and business in relation to the Society, and such votes shall be regularly entered and recorded, and such records preserved among the archives of the Society.

Art. 4. The Board of managers shall prepare the necessary by-laws for the Society, shall meet at least once in each year at such time and place as they shall appoint and shall prepare the premium list by appointing the necessary committees.

Art. 5. There shall be appointed by the Executive committee annually an officer to be called Superintendent of Fairs, whose duties shall be to personally over-

see and direct the erection of the buildings on the Fair ground and otherwise prepare such grounds and carry out the rules and regulations of the Society and of the Executive Committee in relation to said fair, and who shall be paid out of the funds of the Society such sums as the said Executive Committee shall award.

ART. 6. The President, or in case of his absence, either of the Vice Presidents shall upon request of any three of the Executive Committee call a special meeting of such committee, or of the Board of Managers, or of the society.

ART. 7. The Board of Managers may fix the amount of compensation to be paid the Secretary and Treasurer per annum.

ART. 8. The Executive Committee in all other matters subject to the constitution and by-laws shall regulate all the concerns of the Society, during the intervals of its meetings; publish such communications and offer such premiums as they shall think proper; and they shall lay before the Society, at each of its meetings, a statement of their proceedings.

ART. 9. The Secretary shall keep a record of all the votes and proceedings of the Society and of the managers and Executive committee, and shall record such communications as they shall direct.

ART. 10. The Treasurer shall receive all moneys due or payable to the Society, and all donations that may be made to it. He shall from time to time pay out such moneys as he shall have orders for from the Executive committee, and shall annually, and whenever thereto required, render a fair account of all his receipts and payments to the Society or a committee thereof. He shall give bonds for the faithful discharge of his duty, in such sum and with such sureties as the Executive Committee shall direct.

ART. 11. A committee shall be appointed annually by the Executive Committee to audit the Treasurer's accounts, who shall report to the Society: and the same being accepted, shall be entered by the Secretary in his books.

ART. 12. In case of the death, resignation, incapacity or removal of the Secretary or Treasurer, the Executive Committee shall take charge of the official books, papers, and other effects, belonging to the office that may be vacated, and give receipts for the same; which books, papers, &c., they may deliver to some person whom they may appoint to fill the office until the next meeting of the Society, at which time there shall be a new choice.

ART. 13. All the present members of the old New England Agricultural Society shall be members of this Society, and any other person may become an annual member by the payment of two dollars, and a life member by the payment of five dollars.

ART. 14. The Vice President and Managers in each State shall constitute a committee for that State to solicit and receive subscriptions for raising a fund for encouraging the pursuit of Agriculture, under the direction of this Society; and they shall act as Executive Committee for that State for such purposes.

ART. 15. The Governors and Lieutenant Governors of the New England States, shall be admitted honorary members of the Society.

ART. 16. The annual exhibitions of the Society shall be held in the said States or elsewhere as the Executive Committee shall decide.

ART. 17. All the present officers of the New England Agricultural Society shall be the officers of this Society until the next annual meeting, or their successors are appointed.

ART. 18. The annual meeting of the Society shall be held on the first Tuesday of February, of each year, at such place as the Board of Managers may determine, and all meetings shall be called by giving no less than fourteen days notice in one agricultural paper in each State.

ART. 19. This Constitution may be amended by a vote of three-fourths of the members present at any annual meeting.

ART. 20. In case of the resignation or death of any of the Executive Committee the remaining members shall have power to fill the vacancy thus created.

After some debate the fee for life membership was fixed at $5 and for annual membership $2 per year.

The last clause of the resolution, excluding manufacturers and venders of agricultural implements from committees of award on such implements was stricken out.

The President stated that arrangements were in progress looking to the holding of the next Annual Exhibition in Maine.

All rules and resolutions passed by the old Society were adopted by the new, so far as applicable.

The old Society being called to order it was

Voted, That the Secretary be instructed to appropriate the $500 in his hands for the publication of a report, to the publication of the reports of the Fairs in Vermont, Rhode Island and Connecticut; and that he pay the officers with the other $500 received for that purpose from the Rhode Island Society; and that the balance of money in his hands and in the hands of the Treasurer, be paid to the Treasurer of the New England Agricultural Society, this day organized under the charter.

EXTRACTS AND REPLIES.

BITTER MILK.

For several weeks past the milk from our two cows has been very bitter. It has a little more consistency than usual, as we observe in straining. We have recently given them in addition to their usual feed hay and meal, the swill we formerly gave to the hogs and some turnips. Please give any information in your power in relation to the extreme bitterness of the milk. W.

Middleboro', Mass., Jan. 1, 1889.

REMARKS.—There is always more or less complaint of *bitter milk* in the winter season. The principal cause, we think, is the want of a place where the temperature *is even*, and just suited to throw up the cream. If the temperature is regularly too low, or if it falls below sixty degrees, a portion of the time, the milk stands too long, and the milk assumes a bitter taste, that is imparted also to the cream. Only a few cellars are suited to the raising of cream in the winter. Where they are not, the better way is to set the pans of milk in some dry, clean, warm closet, in the kitchen, or near a chimney where an even temperature will prevail. If the milk is not affected by any other cause, in such a place we think it would remain sweet until the usual amount of cream has risen. In our own practice we rarely feed turnips to cows from whose milk we are making butter. Perhaps it may be done and not affect the milk to the taste, but we prefer not to run the risk, and feed mangolds, carrots, beets or grain to the milch cows, and let the turnips go to dry stock. There may be other causes for bitter milk, but if so, we do not know what they are.

SHAVINGS OF ASH WOOD AS AN ABSORBENT.

Will it pay a farmer who has a large farm and a large stock of cattle and horses to winter, to draw shavings from the planing mill and turning lathe, one mile for bedding his stock, and also as an absorbent of the liquid voidings from his animals? The shavings are mostly made from ash wood.

West Dover, Vt., Jan. 19, 1869. E. S. C.

REMARKS.—Yes, sir, we have no doubt of it. The cattle will lie warmer and easier for the bed-

ding, the shavings will absorb and retain a large amount of valuable material, and if the soil is too compact they will have an excellent *mechanical* influence upon it. Any fine, dry, vegetable matter applied largely to the land, has been found to improve it; but the process is a slow one, unless fermentation is readily induced in it by the droppings of cattle or something else of this nature. We have known an impoverished field of sandy loam thoroughly fertilized by the use of spent tan, frequent ploughings and the bountiful blessings which the atmosphere shed upon it—nothing else being applied. But this was effected through a process of several years, as an experiment. Perhaps it might have been more *economically* restored by the use of active manures. The experiment proves, however, that our poorest lands may be made in some degree fertile by an expenditure of little besides the labor required to keep the surface free from weeds and in a fine and loose condition. The first money cost would be for grass seed, to be grown and ploughed under.

DISEASE AMONG THE PIGS.

Will you or some of your subscribers tell me of the cause and a remedy for a disease among my pigs? They are taken with a swelling of their hips and numbness of their limbs. Some of them are lame all over. Many have been lost in this section by this disease. Some lay it to buckwheat feed, and straw of the same for bedding; but I am confident it is not the case with mine.

J. C. MILLER.

Fort Kent, Aroostook Co., Me., Feb., 1869.

REMARKS.—It is quite clear that your pigs suffer from paralysis, but not so clear what causes it. It is often occasioned, however, from exposure to dampness and cold, especially where pigs are obliged to lie upon damp floors, where cold drafts of air pass up between cracks in the floor upon the wet bodies of the animals. Or sleeping upon wet bedding and exposure to severe cold at the same time, would be quite likely to cause paralysis of the hinder parts. Warm and well-ventilated apartments that are kept dry, a table-spoonful of the flour of sulphur, three times in the course of ten days, and good, nourishing food, are the best prescriptions we can recommend.

SORE TEATS IN COWS.—MANAGEMENT OF LONDON DAIRIES.

In reply to "G. H. K.," Sterling, Mass., Nov. 16, 1868, I beg to give him an old English receipt to cure cow's sore teats. It may be useful to other subscribers to the FARMER. The boilings of pig's feet, ears and faces, after being well salted—and a portion of saltpetre also—for five or six weeks. The following is the mode of preparing it. After the feet are boiled till the meat is quite done, take the boilings and add, in a muslin bag, two or three good handfuls of green mallows, with the roots, and boil till quite tender; then chop or pound to a pulp. After the boilings are cold, take off all the fat and put into *cold* water, and set it on the stove to *gently* melt, not to boil or even simmer, when all the bits of meat and bone will sink in the water. Then set by to get quite cold. Take off the fat and add to it the pulped mallows, and mix it well together into a salve which will be found very beneficial for cow's sore teats, and as a preventive of cracking, if occasionally used on those which are hard and rough. Speaking of cows, it will not, perhaps, be much out of order to make a little addition to the remarks of Mr. H. Morton, the "city of London cow keeper." Having been acquainted some years ago with a great cow keeper in London, whose milk walk extended over many miles, I learned that he always had in reserve the same quantity of milking cows out at grass, that he had in the stalls, and regularly milked twice a day. As soon as any stall-fed cow began to sink in her milk, she was turned out, and a grass cow brought up into her place. All cows, however, were changed once a month, even if they milked well up to the day of turning out to grass. By thus changing the cows, he was enabled to keep up his daily supply of milk for his customers. His first start was with 170 cows, which number he kept up.

JOHN WHATMORE.

Bridgenorth Farm, Dunleith, Ill., Jan. 15, 1869.

RAISING WHEAT IN NEW ENGLAND.

Your remarks in the recent number of the FARMER, in relation to raising wheat in this part of the country, have led me to think over my experience in raising wheat for the last thirty years. We first sowed half a bushel of spring wheat on about half an acre of land, and raised eleven bushels of good wheat. The next year we sowed one bushel on some of the best land of our farm, and got a lot of rusty straw and shrivelled grain, from which a man would have to work hard to thresh out enough during the day to make bread sufficient for his supper. A few years later we sowed some more spring wheat with about the same results. In 1853, I remember, I had the wheat fever again, from reading Mr. Henry Poor's articles. I went to Andover, where he then lived, and bought a bushel of his best winter wheat, thinking that it would not rust. It was sowed on land that usually gives eighty bushels of shelled corn to the acre, when it is manured as we did for the wheat. It yielded twenty bushels of wheat. The next year we sowed it and it rusted worse than the spring wheat. About ten years ago, one of our neighbors got some wheat from Dunstable, which it was said would not rust, and the wheat fever began to appear again, but it soon died, or rather rusted out. From my experience I have come to the conclusion that it costs me twice as much to raise my wheat, as it does to raise other crops and buy my wheat.

WM. R. PUTNAM.

Danvers, Mass., Feb. 1, 1869.

FANCY POTATOES.

"Every dog must have his day," is an old adage, and as true of potatoes as dogs. Just now the fever runs high, and the man who is fortunate enough to raise a large crop from a small amount of seed, or succeeds in producing an "extra early" tuber, finds a market for them at any price. "Fast" horses and "fast" potatoes take well. Two years since, in common with others, I "invested" a few dimes in the "Early Goodrich." They did very well. Encouraged to expect a greater yield under more favorable circumstances, I carefully treasured up the product of the first year, selling enough however to my neighbors to realize a little more than my first investment. I planted largely the second year, carefully manuring and cultivating them. The drought came on just when they needed moisture most, and the result was a large crop of "small potatoes," from the size of a buck shot upwards, not reaching however the size of decent respectability in but few cases. From one hill I dug one

hundred and seven potatoes, mostly very small. The tubers themselves are hardly eatable. They are soggy and tasteless. They will burn sooner than bake or boil, and require nearly double the time for either process, of any other potato I ever saw; and when "done" you will find a bullet in the middle. This unfortunate result may be owing to the soil, or the manure, or the weather, but this "experience" has quieted my fever for "early potatoes," and I am going back to "first principles." This year I propose to plant the "Jackson White" and the "Jersey Peach Blow," two varieties which have been fully tested and are good. L. C. B.

Essex, Vt., Jan., 1869.

SUGAR MAKING.

I wish to ask you or any of your correspondents, well posted in this branch of business, a few questions on this subject.

1. Has there been any signs discovered so that we can tell, in advance, whether the season will be *good* or *poor*, as we term it?

2. What is the proper name of a substance now found in molasses and sugar, variously called "sugar grit," "sand," "carbonate of lime," "nitre," &c.

3. Does this substance come from the soil, by the way of the *roots*; or from the *air*, by the way of the *leaves*? or is it a chemical product formed in the process of manufacture?

4. Why was there *more* of this sediment last year in a given quantity of molasses than in any previous year?

5. How is it that we have so much of this substance now, and none, or scarcely any, forty years ago? When was this article first discovered?

6. What is the best process for separating the "grit" from molasses?

7. Does the sap come mainly from the soil through the roots, or from the atmosphere through the leaves?

8. What per cent of sweet passes off in steam, in the manufacture of maple sugar?

TIMOTHY WHEELER.

Waterbury Centre, Vt., Feb. 8, 1869.

REMARKS.—1. "In the morning sow thy seed, and in the evening withhold not thy hand: for thou knowest not whether shall prosper, either this or that, or whether they both shall be alike good." Still we have weather-wise and sugar-wise people who are flush with prophecies, but we have not heard from them this season.

2. The proper name of this "sugar grit" is phosphate of lime. See an article in MONTHLY FARMER page 331, volume for 1867, by I. B. Hartwell, Wilkinsonville, Mass. Why the other ingredients of the ash of maple wood, such as potash, sulphur, mineral matters, &c., are not precipitated, as well as the lime, is a question for the chemist.

3. We suppose that this substance comes from the soil. The sugar, we suppose, is elaborated by the leaves and other organs of the tree and deposited in the tree or its roots, as in case of the beet, the year previous.

4 and 5. We doubt whether there was ever less of this grit in sugar than now, and suppose that its apparent increase is owing to the greater care in manufacture and the closer observation which has latterly been given to every process.

6. Mr. W. H. Lyon, of North Craftsbury, Vt., in a communication, MONTHLY FARMER, 1867, page 334, said that by straining the syrup through a flannel strainer all the "grit" will be left in the strainer.

7. We suppose "the *sap* comes mainly from the soil," but that it dissolves and takes up the saccharine matter in its upward course that was deposited the previous year.

8. We suppose that no part of the "sweet" passes off by evaporation.

The pleasant weather of the few past weeks indicates that the time of the flow of sap is near, and these off-hand "suppositions" are appended for the purpose of bringing the subject at once before the unassembled congregation of FARMER readers, thinkers and writers.

CULTURE OF CELERY.

Can you tell me what time West Cambridge market gardeners set out their celery plants, the general course of culture, &c., followed by them? Can it be raised as a second crop? S.

REMARKS.—Celery is propagated by seed. Our practice is to sow it in a hot bed about the middle of March. It may be sown in the open ground but is a long time in coming up. Sowing it in any old box, or large pot, placed in the kitchen, all the plants would be produced required for a medium sized family. When the plants are three or four inches high, prick them out into a soil that is rich and fine; protect them from the sun for two or three days and keep them moist. From the middle of June to first of July, transplant again into a moderately rich soil. Some persons make trenches a foot deep in which to set the plants, but we have succeed ed just as well by setting them on a level surface.

When the plants are eight or nine inches high, draw the soil about them a little at frequent hoeings, holding up the leaves at the same time to prevent the earth from getting in between them. This should be continued until the plant has grown large enough, and will blanch the stalks.

Before severe frosts come, the plants must be taken up, roots and all, and set out in a cool cellar in moist sand. They may be placed quite near each other, but the ends of the leaves left out. Sand is much better than the soil they grew in for packing.

COLTS GNAWING CRIBS AND BOARDS.

I have two last spring colts that I am wintering. The youngest was weaned last October. In November, or the first of December, I noticed they had commenced gnawing the edge of their cribs and the wood-work about them. They have gnawed my barnyard fence from one end to the other, and seem to like those parts that are a little decayed or soft. If you or any of the numerous readers of the NEW ENGLAND FARMER can tell me the cause, or what will stop the habit, it will greatly oblige an old subscriber.

JAMES WALKER.

Manchester, N. H., Jan. 30, 1869.

REMARKS.—The gnawing of the crib, boards, or any wood-work, is not only a habit of colts, but of many horses who are well-behaved in other re-

spects. Some one remarks that the high-fed and spirited horse must be in mischief, if not usefully employed. But it is often difficult to tell what causes the colt to use his teeth in this way. It probably arises from different causes, and we should naturally look for them about the mouth. When at about the age of your colts the second teeth begin to push up, the fangs of the first teeth are absorbed, and the teeth finally drop out. Sometimes, however, this process does not go on properly, and what we called *wolf's-teeth* are formed. In all cases, therefore, where the habit of gnawing occurs, the mouth of the colt should be carefully examined by some skilful person, to ascertain whether the cause lies there. The habit may also be contracted by some exposure, such as cold, damp, or wet bedding, want of cleanliness or variety of food, or vermin may be preying upon them. All these points must be looked after, and corrected if they need it. If the habit continues, seek the advice of the persons most competent about you to suggest a remedy.

SCAB IN SHEEP.

My sheep have got the scab so that their wool is all coming off. Please inform me through the FARMER, the best remedy for this disease.

Bradford, Mass., Feb. 2, 1869. JAMES JETTER.

REMARKS.—Dipping the sheep in a strong decoction of tobacco, with a little spirits of turpentine occasionally added, after brushing off the scabs with stiff shoe brushes dipped in a suds of tobacco water and soft soap, is recommended by Dr. Randall. But with wool as long as it is at this season, this would be an expensive operation. He also recommends applying the tobacco wash to which one-third, by measure, of wood ashes, as much lard as the lye will dissolve, a small quantity of tar, and about one-eighth of the whole, by measure, of spirits of turpentine. Cut off the wool as far as the skin feels hard to the finger, wash the scab with soap suds rubbed hard with a shoe brush so as to cleanse and break the scab, then rub the tobacco compound upon the part affected. Other preparations are used, such as arsenic, mercurial ointment, corrosive sublimate, &c., which are dangerous remedies. The cause of the scab is said to be an insect, similar to the mange in horses and the itch in men. It increases very rapidly, is very infectious, and produces a dangerous disease. If you cannot obtain the advice and assistance of some neighbor acquainted with the disease, you will do well to procure a copy of *Randall's Practical Sheperd.*

NORWAY OATS.

I was about to inquire through the FARMER, what virtues were possessed by the Norway oats as a farm crop which should merit the high prices asked, or even the confidence of practical farmers, when I noticed in the last issue, an article from "L. C. B." in which he recommends the oats.

The assertions of "L C. B." are not warranted by the crops in this vicinity. My own experience with them is, that forty pounds sown on one hundred and forty-three rods of very rich corn stubble, dressed with superphosphate and other fertilizers, gave me only fifty-three bushels of thirty-two pounds, the heaviest of which weighed thirty and one-fourth pounds per measured bushel; while I raised the past season over two hundred bushels of common oats on four acres of comparatively poor land which never received a dressing of manure of any kind, with three bushels seed per acre, which weighed more by the bushel than the Norways. I seldom fail to raise a hundred bushels of common oats to the acre on ground equal to the said corn stubble.

People in this vicinity have raised Norways side by side with the common oats, and I have yet to learn of an instance of fair and careful trial where the Norways have equalled the common oats. Among some thirty farmers who have raised the Norways, I have heard but three speak well of them as a farm crop. Many of these farmers decline to sow them again except under contract for the crop at a high price.

Sown the same day, they do not mature as early, and do not yield or weigh as much on equal soil as the common oats. The straw being coarse and growing very tall saps the land without rendering an equivalent. Some hundreds of bushels of these oats raised in this vicinity will not average thirty pounds per measured bushel. So far as multiplicity of stalks is concerned, I have counted more stalks from one kernel where sown thin than any brag I have seen of the Norways. I do not consider the recommendations from those interested in the sale of the oats, or the *paid for certificates* of their dupes entitled to any consideration, but prefer to rely on the real *bona fide* facts of pounds as a farm crop. The Norway oat crop of this county has been mostly picked up by Messrs. Smith & Ramsdell at prices ranging from $1.25 to $2.00 per bushel. A. D. ARMS.

Montpelier, Vt., Feb. 8, 1869.

CANADA AND THE STATES.

Your States' papers, almost without exception, speak of Canadians as having acted a very unfriendly part during the war. It is not wholly a just idea. You had many friends here whom you ignore on account of a few unfriendly and irritating men. Very many of our papers were your steady friends, but they were never noticed. The others were, and for their sakes you condemn us all. Is this fair?

You blame us for "harboring" your enemies, skedaddlers, &c. Even Senator Morrill lowers himself so far. Was it worse for us to "harbor" a few unarmed skulking Southerners than for you to harbor immense numbers of armed Fenians, *our* foes? We never heard of raiders "picnics" within our lines addressed by prominent Canadians. Our laws regarding refugees do not probably differ from your own.

Many thousands of Canadians enlisted in your armies and fought for you. Thousands died for you. How many men's blood would it take to balance one unfriendly tongue or pen? Apparently it couldn't be done. No States' paper has ever said to my knowledge the first kind word to those of us who mourn their loved ones fallen for your sakes. Not so many of us *spoke* against you as *fought* for you, and yet in almost every States' paper we take up we meet with bitter words of "all that Canadians have said and done during the last few years," or some condescending one speaks of "holding out the olive leaf" to us, miserable sinners. Is this fair? J. G. FIELD.

Stanstead, Canada, Feb. 5, 1867.

REMARKS.—By publishing the foregoing we do not wish to be understood as pleading guilty of having entertained the feelings or expressed the

sentiments ascribed to the "States' papers almost without exception." But we do confess to an inability to understand why the Canadians, or the subjects of any foreign power, should have the benefits of our markets at any cheaper rate than our own citizens; or to see the policy of making *treaties* which would not look well when incorporated into general *laws*.

LETTUCE AND CABBAGE.

What is the best kind of lettuce? Is there a kind called the Michigan lettuce that is superior to all others? Have been waiting for the seedsmen to advertise, that we might know where to send for catalogue of seeds. What is the best kind of early cabbage for market gardening, and the best way of cultivating them?

PRIMUS JOHNSON.

Webster, Mass., Jan. 24, 1869.

REMARKS.—We know nothing of the Michigan lettuce. The White Silesia for early, and the common Head Lettuce for ordinary use are the best kinds, on the whole. The seedsmen send catalogues on application.

The Oxheart, Early York and Early Savoy are good kinds of early cabbage. Sow in a hot bed in March, and transplant to a rich warm soil, as soon as it is warm and mellow. Use the hoe or rake almost daily. Ashes, moistened with weak brine, may be worked into the ground two or three times during the season. A little plaster sprinkled into the hills when the plants are being set is advantageous. Go over them early every morning and look for the gray worms that are the great pests of early cabbages. If the weather is dry use the watering pot freely until they begin to head.

WHY BEES SHOULD NOT BE MOVED IN WINTER.

The cold makes their combs very brittle and consequently very likely to break in transportation, especially if they are less than one year old. When they are full of honey and subject to frost they will crack even if not moved, and should be kept quiet until it is warm enough for the bees to repair such cracks, which they will do at the earliest opportunity. After bees have been confined to their hives by reason of the cold they should not be disturbed until they can leave the hive to fly. After it is warm enough for that they may be moved if the combs are sound. The combs are much safer during transportation when the hive is bottom upwards. F.

Mast Yard, N. H., Feb., 1869.

WHEAT RAISING IN THE CHAMPLAIN VALLEY.

In connection with the article in the FARMER, by Mr. Poor, urging a convention of New England farmers to discuss the matter of wheat growing, I would say that I think every New England farmer should grow wheat enough at least for his own use; by which thousands of dollars annually would be saved to the East that is now sent West for flour. I have sowed wheat every year for the last ten or twelve years, and I get as good flour as the best I can buy. I choose my highest and most windy places; turn over the sod; plant corn, with a good coat of barnyard manure turned under, and manure in the hill, getting from fifty to seventy-five bushels of corn per acre; plough the next fall or as early as possible in the spring, and sow one and a half bushels of screened wheat per acre—(better to soak the wheat over night in a strong brine)—without any more manure, and seed down with half bushel herds grass per acre. My lightest yield of wheat per acre has been twenty bushels, and my heaviest forty, average about thirty bushels. My soil is a rotten slate, and after two such crops as the above I get from two to three tons of hay per acre. I plough from six to ten inches deep and am not afraid of putting the manure too thick. JACOB FULLER.

South Wallingford, Vt., Feb., 1869.

SWAMP LARCH FOR RAFTERS.

Can swamp larch, sometimes called juniper, be used for rafters in a barn, or would they warp too badly? Would it be better to have the sticks left to season awhile before they are sawed? What is the *best* and *cheapest material* to cover the flat roof of a barn? What work on Farm Buildings would you advise one to consult to obtain an idea of the best modern improvements in barn building?

AN OLD SUBSCRIBER.

Middlesex County, Mass., 1869.

REMARKS.—We have no doubt that larch (hackmatack) rafters would answer very well if they were carefully "stuck up" after they are sawed, as inch boards are usually put up to season.

If the roof is nearly flat, some kind of cement would be best, gravel and tar, or something of the kind. We have heard that common hydraulic cement does well on a flat roof, put on quite thin and repeated several times. Good white pine boards with square edges and the best of shingles are the most economical if wood is used.

A book on Farm Buildings, in which especial attention was given to the subject of barns, was published by Mr. J. H. HAMMOND of this State, in 1852 or 1853. It can probably be found at A. Williams, 100 Washington St., Boston.

EGGS SOLD IN SIX MONTHS FROM BRAHMA FOWLS.

In August, 9 doz.; September, 14½ doz.; October, 22½ doz.; November, 9 doz; December, 26¼ doz.; January, 37½ doz.;—total 118¾ doz.

August 1, had 4 old hens and one pullet, just 5 months old, that had commenced laying; by September 1, 6 or 8 pullets had began to lay; by December 1, about 20 had began to lay. Before January 1, the old hens were all sold, and the pullets, 40 in number, were all laying; but those that commenced in August and September of course did not lay as many eggs as those that had just commenced. The price obtained has averaged 44 cents per dozen. A good many have been used in the family besides those sold.

I find the Brahmas good winter layers, if well cared for. They must not be overfed or they will grow too fat. Mine live mostly on oats and wheat bran, with some corn meal. Have plenty of water and oyster shells, with beef scraps about once a week. A. W. CHEEVER.

Sheldonville, Mass., Feb., 1869.

WOOL GROWERS, STOCK RAISERS AND DAIRYMEN.

Once and again the editors of the NEW ENGLAND FARMER have urged the wool growers to be awake to their interest in securing needed protection. The wool growers' protection is the grass growers' protection, as wool is but grass and grain. Beef, pork, butter and cheese have the same origin, and consequently the same interest in a just

wool tariff that wool growers have. Still there is a feeling among dairymen and stock growers of indifference, if not of hostility, towards the wool growers' interest. How extensive that feeling is I leave every man to judge for himself. Depress wool growing until cattle shall take the place of sheep and all the products of the land will fall in price. Make all grass growers feel they have a common interest in everything that affects any class of grass consumers, and the wool growers and dairymen will be heard as one man, and their just claims will be heeded. P.

Mast Yard, N. H., Jan., 1869.

HUMOR IN A HORSE.

Can you give me a remedy for skin disease or humor in a horse? The horse is in the constant habit of rubbing his head and neck against whatever he can get at and of biting himself.

Centreville, Mass., Feb., 1869. F. DOANE.

REMARKS.—Are you sure that he is entirely free from vermin? If so, send for your physician to examine him, who will probably prescribe a few doses of some mild purgative. That is the safest and will prove the cheapest course you can take.

CAUSE OF SLABBERING IN HORSES.

My experience has been that either Lobelia or common Smart Weed will produce extreme slabbering; especially the latter plant. A. J. STOW.

Weybridge, Vt., Feb. 6, 1869.

SPRINGFIELD, VT., FARMERS' CLUB.

In consequence, probably, of their comparatively greater isolation, farmers in New England have been much slower in availing themselves of the advantages of association than any other class of our citizens. Mechanics have their Unions, merchants their Boards of Trade, physicians, lawyers, ministers, &c., keep up distinctive organizations, and find both pleasure and profit in stated meetings. Why should not farmers? No class needs union and co-operation more than farmers, and a growing disposition to avail themselves of their advantages we regard as the best index and evidence of agricultural progress. A correspondent furnishes an illustration in point by the following brief history of the Springfield, Vt., Farmers' Club.

This Club was organized seven years since by a few young men who felt the necessity of more thoroughly understanding their business, and of meeting to exchange thoughts and views and endeavoring to improve their minds as the first step towards improving their stock and farms. The members have gradually increased and now number some thirty. The meetings are held on every alternate Monday evening through the winter months, at the members' houses, where essays are read, and a discussion follows on the various questions interesting to the farmer. The influence for good which has grown out of these meetings is very apparent, and is particularly noticeable in the stock of some of its most active members.

Some of the very best flocks of Merino sheep to be found east of the Green Mountains are to be seen in Springfield.

Two years ago the Club appointed a committee to report upon the best breed of "neat stock" for our locality. This committee, with H. M. Arms as chairman, made an elaborate report, giving a decided preference to the Short-horns. This report led to the formation of the "Springfield Thoroughbred Stock Association," consisting of twenty members. At that time there were not a half dozen thoroughbred cattle in town. Now they number more than one hundred fine animals, with the celebrated herd of Burdett Loomis, Windsor Locks, Conn., purchased by H. M. Arms, for the round sum of $10,000.

A GOOD RETURN FROM COWS.

During our recent visit to Amherst to attend the discussions of the annual meeting of the *State Board of Agriculture*, we met and conversed with many persons from various parts of the State. Among others, was a conversation with Mr. J. W. HAGAR, of Phillipston, in relation to his manner of feeding milch cows, and the product secured. He has sent us an account of his course which is as follows:—The year ended January 11, 1869. He kept seven cows; kept them eating two hours in the morning and the same at night, including half a peck of Swedes turnips to each, once each day. Watered them twice during the day. After calving, he gave each cow, daily, two quarts of "middlings," until the first of May. On the first of August he commenced feeding corn fodder and continued it until the year was out.

Amount of butter made 1467 pounds which amounted to,	$671 86
Milk sold,	1 00
Cheese, 160 lbs, at 15c ₱ lb,	24 00
	$696 86

Average per cow, $99.55.

The milk was skimmed when twelve hours old, and the skim milk fed to the calves, which were fed regularly upon it for three months. He has not stated to us the value of the calves.

IS PORK UNCLEAN?

You have no doubt read the enclosed article entitled "Pork Unclean," as well as hundreds of your readers, it having been extensively circulated by a party lecturing in this vicinity on health, &c.

You, no doubt, with your experience, know if the statement made is true or not. Is it a fact, that every hog has "corruption flowing from his feet like drainage from a sewer?" or is it true that "nothing but man will eat pork," or that "lard is the quintessence of scrofulous extract, &c., &c.?" Do let us know if these named statements are true or false. A READER.

Medford, Mass., Feb., 1869.

REMARKS.—We do not believe that one-half of the article enclosed to us, about pork, is true. In the first place the writer quotes the old lawgiver, Moses, as his authority that pork is unclean. He reasons upon the supposition that Moses interdicted the use of certain animals because they were unwholesome. Such, in our opinion, was not the principal cause. His intention was to wean the Israelites from their entire dependence upon their animals for food, which is usual among nomad people, and to introduce new wants which only agriculture could supply.

In the second place, the object of this interdiction was, to discourage any friendly intercouse between the Israelites and the idolatrous nations around them, and nothing could be better calculated than this, and other dietetic regulations, to prevent them from joining in the festivities and social entertainments of their neighbors. The Jews abstained from eating animals which their neighbors did eat, and which we eat at this day; and in the same manner, we refrain from various animals, not at all unfit for food, which the Jews did eat and which are eaten in other countries. We do not eat horses, dogs, cats, snails and grasshoppers, all of which are good for food, and are more or less eaten in different countries, although from not being used to them, we should regard their meat, if set on a table, with as much abhorrence as a Jew or Mohammedan could manifest with regard to pork. The great object Moses had in view was, to change the character of the Israelites from that of a nomad or wandering people, to that of an agricultural people, with a fixed home.

In Deuteronomy, xiv., 8, Moses says:—"And the swine, because it divideth the hoof, yet cheweth not the cud, it is unclean unto you: ye shall not eat of their flesh." And he said the same of the *hare* and the *coney* in the preceding verse. This could not have been because either of them were unfit for food. These and other interdictions were intended to make their new country necessary to the Israelites, so as to render it impossible for them to abandon it for any other, or to resume their former mode of life. As an evidence of this, in the 21st verse of the same chapter, Moses says:

"Ye shall not eat of anything that dieth of itself: thou shalt give it unto the stranger that is within thy gates that he may eat it; or thou mayest sell it unto an alien: for thou art an holy people unto the Lord thy God."

This seems to us decisive proof of the truthfulness of the position which we have taken. Moses was an upright man. If he supposed that the flesh of an animal that "died of itself" was impure and unwholesome, would he give it to the innocent stranger who was a visitor among the people, or sell it to the alien who might be poisoned by it? By no means. Moses was no such double-dealing person.

Again, in speaking of the hog, the writer of the article sent to us, assuming the air of an astute naturalist says:—"Examine the inside of his fore legs, a few inches above his feet, and look at the open sores or issues provided by nature to drain off a part of the vile, scrofulous ichor from his corrupt and filthy body." Has not this delicate writer the same provision on his own legs, and all over his body? If not, his own skin would soon be covered with the "mange, tetter and scurf" which he ascribes to the poor hog. Does he not know that the hog never *sweats*, and that these issues subserve the purposes of perspiration? It would be well for this critic to read the Bible more carefully, and a volume or two on natural history and physiology before he questions the wisdom of God in the creation of His works. In wisdom He made them all—the hog included. When circumstances permit, the hog is a neat animal. None like a dry, clean bed better, and none will keep it cleaner. He has his trichinæ, it is true; so has the ox his "warbles" and pleuro-pneumonia; the cow, the "cow-pox;" the sheep, the foot-rot, ticks and cutaneous eruptions, but when properly fed and tended all are good as food for man.

We are aware of the opinions which have always prevailed in the East with regard to the use of pork. Large quantities of fat meat of any kind would probably prove unwholesome, and particularly so to persons subject to leprosy and other cutaneous diseases, as the Israelites seem to have been. The warmer the climate, the less need is there of a meat diet; while in a cold one, a larger proportion of flesh and fat as food is best.

It is quite probable that in the East swine were permitted to run at large, as they do at the present day in the cities in our Southern States. There they feed mainly upon all sorts of foul garbage; are kicked about by men and horses, stoned by boys and hunted through the hot sun by dogs; are overfed one day and starved the next, and by these circumstances, and the great variations in temperature to which they are subjected, may contract diseases, and their flesh be unwholesome.

But it is not so among the farmers of New England. Their swine are generally comfortably housed, fed regularly upon wholesome, nutritious food in variety, provided with pure water and salt, and during the summer season are daily supplied with fresh weeds, tender grass, milk, a little grain and uncooked vegetables. They live quietly, grow and fatten rapidly, and at ten or twelve months old furnish the cleanest, sweetest and as whole-

some flesh as any with which we are supplied. We know persons who eat fresh pork with as much comfort as they can the finest mutton chop or beef steak; and we have never known any to be injured by its use, who ate in the moderation that all such concentrated food should be taken. The truth of the matter is that fresh pork is so delicious that persons eat too heartily of it, get sick, and charge the consequences to the unwholesomeness of the food!

EFFECTS OF FERTILITY.

Though wheat is wheat, hay is hay, potatoes are potatoes, apples are apples, it is well known that there is a great difference in the qualities of these several articles of the same varieties grown on different soils and in different years. What influence on quality have the different soils on which they grow, or the same soils when differently manured? In a discussion of this question a correspondent of the *Rural New Yorker* alludes to an analysis of two parcels of oat straw grown on the same farm, in the same year, from the same seed, but one on bog and one on dry land, which showed a proportion of 1.90 per cent. of silica in that from the bog, and 3 42 per cent. in that from the dry land; wheat grown in different places varies from 18 to 16 per cent. in gluten; grass from land to which salt has been applied was found on analysis, by C. W. Johnson, to contain a larger proportion of soda than other grass in the same field to which salt has not been applied. The writer then says:—

A few years ago, when applying a top dressing of fine raw bones to a meadow, which had run into blue grass, the bones were carried to the field in bags, early in spring, and these bags dumped upon the ground at equal distances, so the piles could be taken into baskets and sown evenly over the field. These piles were not gathered up clean, and a larger proportion was left than was sown over other parts of the field; and the grass on these spots grew taller and of a deeper, darker green. These were cut by themselves and bound in bundles to preserve them separate. In winter, when feeding the hay from this field—which was a fair crop and saved in good order—the cattle and horses were occasionally given some of these bundles, and they would leave the hay and devour these as greedily as if they had been oats. They readily knew the difference, although of the same kind of hay and grown in the same field. The larger amount of phosphate of lime and nitrogenous matter applied to these spots produced a more perfect development of these qualities in the grass, and probably gave the hay a finer odor, and, therefore, a better relish. The animals seemed to distinguish the difference the moment it was brought within smelling range.

We have also tried the experiment of salting spots here and there in the pasture, and dressing others with bones or superphosphate some weeks before cattle were turned out in spring, and have uniformly found that they delighted to feed on these spots.

These facts may suggest a reason for the diverse opinions of farmers on different soils as to the necessity of giving salt to stock, and suggest a cause for the "unnatural appetite" of stock on some farms for bones, boards, &c. Every cook knows the difference between the quality of eggs from half-starved and well fed hens; and why should there not be a difference in the quality as well as quantity of vegetation on poor, exhausted land and on that in which all the elements of fertility exist in abundance? The subject also suggests inquiries in relation to the effect of barn-yard and special manures which we leave to the consideration of farmers, with the remark that there is much in our soils, our crops, and our manures to think of and study into.

WASHINGTON COUNTY, VT.—The farmers of this county met at Montpelier, Feb. 6, and organized an Agricultural Society. The *Journal* says its most sanguine hopes, both in respect to numbers present and the degree of earnest purpose manifested, were far exceeded. A constitution and by-laws were adopted. The following officers were elected:—

President—Levi Boutwell.
Vice President—D. B. Wheelock.
Secretary—Austin D. Arms.
Treasurer—Clark King.
Auditor—Don P. Carpenter.

A Board of Directors consisting of one in each town in the county was also elected.

NEW PUBLICATIONS.

ENTOMOLOGY.

Notwithstanding the immense loss which the farmers of this country annually sustain from the depredations of insects upon their crops, little of a practical or popular character has been published on their history or habits until within a comparatively few years past. Books enough on entomology it is true have been issued, but they have generally been written by that intensely learned class who believe that "the man of science who follows his studies into their practical application is false to his calling." But this literary pedantry is giving place to broader views, and learned men are now willing to aid the practical man by their theoretical knowledge. As evidence of this we take pleasure in calling attention to two magazines devoted to entomology, both of which are conducted by scientific men, and both of which avoid or explain technical terms, are fully illustrated, and designed for the common reader.

The first is *The American Naturalist*, published monthly at Salem, Mass., at $3 per year, by the Peabody Institute; the other is *The American Entomologist*; published at St. Louis, Mo., by R. P. Studley, & Co. at $1 per year. They are both well printed, and either we presume would send a specimen to any one who wishes to see a number, on the receipt of one-twelfth the subscription price. We recommend both to farmers who wish to be better posted on the history of insects injurious to vegetation or of those whose habits render them beneficial to the farmer.

PRACTICAL FLORICULTURE; a Guide to the successful Cultivation of Florists's Plants, for the Amateur and Professional Florist. By Peter Henderson, Author of "Gardening for Profit." Bergen City, N. J. Illustrated. New York: Orange Judd & Co., 1869. Boston: A. Williams & Co. Price $1.50, 249 pages.

The taste for flowers and the occasions for their use increase with the wealth of communities. Such is the demand for flowers in this country that Mr. Henderson believes that a frugal man with a knowledge of the business and $1000 capital may safely start the greenhouse business wherever there is a town of 10,000 inhabitants of average intelligence and culture, with less chances of failure than in the nursery or vegetable business. This volume is intended for the amateur who superintends or does the work of his own garden or greenhouse, and for the unskilled florist in country towns who has no one to consult with or to copy from. And we think the work is well adapted to its purpose. The style is easy and familiar, the illustrations fresh and well drawn, and altogether it is an attractive book.

THE AMERICAN GARDENER'S ASSISTANT, in Three Parts, containing complete practical Directions for the Cultivation of Vegetables, Flowers, Fruit Trees and Grape Vines. By Thomas Bridgeman, Gardener, Seedsman and Florist. New Edition, Revised, Enlarged and Illustrated by S. Edwards Todd. New York: William Wood & Co. 1868. Boston: Lee & Shepard.

Something over thirty years ago Mr. Bridgman published his "Young Gardener's Assistant," which, being a practical work, became quite popular. But as there have been great changes and improvements in the business of gardening since that time a change and improvement in books upon the subject are also required. From a hasty examination of this volume we think the reviser has done his work well. We must, however, object to the arrangement of the volume into three parts, with separate paging, and with the indexes of the first and second parts in the body of the book, where they are not so readily found. The illustrations are also quite ordinary.

THE AMERICAN FRUIT CULTURIST containing practical Directions for the Propagation and Culture of Fruit Trees in the Nursery, Orchard, and Garden. With Descriptions of the Principal American and Foreign Varieties cultivated in the United States. By John J. Thomas. Illustrated with Four Hundred and Eighty Accurate Figures. New York: W. Wood & Co. 1868. Boston: Lee & Shepard.

More than twenty years ago we were much aided in our work with fruit trees by the first edition of Mr. Thomas' book, and we then formed a high opinion of him as a practical and reliable writer. The present edition has been newly arranged, and most of it re-written, and embraces the results of the rapid progress made in fruit culture since the first edition was written. It has full indexes, and a brief monthly calendar of work in the nursery orchard and fruit garden.

For the New England Farmer.

WINDSOR CO., VT., FARMERS' CLUB,

AT ROCHESTER.

In accordance with the announcement for the series of winter meetings, the Windsor County Farmers' Club held its third session at this place on the afternoon and evening of the 3d inst. Though the day was stormy, about sixty gentlemen,—some of the number having come five or six miles through the driving snow,—met in the Town Hall at 2 P. M.

Hon. W. W. Williams of Rochester, was chosen President, and Hon. Crosby Miller of Pomfret, Secretary.

The first subject for discussion was,

Reclaiming Worn-out Pasture Lands.

Rev. V. M. Hubbard of this town opened the discussion in a manner which proved him to be as well versed in the principles of sound and progressive agriculture as he is known to be in matters pertaining more particularly to his own profession. He asserted the importance of the subject, as the production of grass lies at the foundation of all farm economy. Without grass we cannot keep cattle; without cattle we can have no manure; with no manure no profitable farming. Most of the pastures in White River valley are now under the dominion of brakes and bushes.

He would first divide large pastures into small lots of ten or twelve acres each. In these put different kinds of stock—horses, cattle, sheep—and then change them from one lot to another. Next attack the brakes and bushes with the scythe,—the great enemy of these noxious usurpers of the soil. The brakes will make good forage for sheep in winter, or good bedding for horses and cattle; or, if not needed for these purposes, excellent compost. When the pasture lots have been carefully mowed, the sheep will generally take care of the young growth that springs up.

Next, sow salt when the brakes have been exterminated. Thus the productiveness of the pasture will be increased one-third and many times one-half. Better grasses will come in, and our lands will keep twice the present number of cattle.

Mr. H. strongly urged upon our farmers the importance of keeping sheep, though the wool alone at present prices will not pay; but they will enrich every rood of land they travel over.

Next, put on fertilizers, such as can be bought or made on the farm. The country

cannot be poor if its pastures are rich. Give the sheep grass and they will give you back the money.

Again, sheep will give us the best and cheapest kind of food, and also in the greatest amount, for the value of the food we feed to them.

This method of fencing and mowing and cropping and manuring a pasture involves labor, and so do all good things in this world. We complain of the small returns from our lands, but the wonder is that they produce as much as they do, for we take from them and give nothing in return.

The discussion was continued by interesting and profitable remarks from Dr. Huntington, Mr. Harvey, Mr. Martin, Hon. W. W. Williams, General Cushman, Mr. Rodgers and others, all making valuable and practicable suggestions, for which I should not dare to ask room in your columns.

Hon. Mr. Williams then introduced the subject of

Wheat Culture.

He remarked that Rochester and its immediate vicinity pays annually $20,000 for flour made from western wheat. Rochester once exported wheat to the surrounding towns. He urged farmers to cultivate this crop. He would prepare the soil well, and manure with sheep manure, and sow as early in the spring as possible.

Mr. Harvey.—Rochester farmers at present pay annual tribute to western farmers. The West feeds us with bread, and we are at the mercy of speculators and western wheat growers. Our remedy is to raise more wheat ourselves, in spite of the difficulties of weevil and rust. He advises: 1. To select good seed,—good in variety and healthy in quality. Diseased seed will produce diseased plants, as in the animal kingdom, sickly germs will produce enfeebled animals. 2. Feed the wheat with such food (manure) as its nature demands, on the same principle you would feed animals. Wheat should not be cut too soon. If the straw is sound and healthy, it should stand till the berry is quite hard, else it will not be plump. Would use ashes; inferred their value from experience on new land (burnt.) Lime and superphosphate should be used on some lands.

Mr. Mathews gave us much encouragement by detailing his experience in wheat raising. He has always raised all his family consumed, and so did his father on the same farm before him. He gets about twenty bushels per acre.

Mr. Wellington would put the wheat in as early as possible in the spring, that it may mature before the weevil attacks it.

Gen. Cushman thought we should raise wheat for our own bread, and then as many oats would be produced as we now raise, with little or no wheat. More profitable to raise wheat at twenty bushels per acre than oats at fifty bushels per acre.

There was general regret that the afternoon was too short to finish a discussion which all felt had been no less interesting than profitable, as it was believed that as a result of this meeting the production of wheat in Rochester will be materially increased.

Though the snow continued to fall during the evening, the hall was filled with ladies and gentlemen to listen to an address by Dr. Henry Boynton of Woodstock, upon

The Condition and Duties of Farmers.

The Doctor contrasted the effects of the two elements of Conservatism and Progress in human affairs, and stated that though there may be no more men among farmers than among men of other occupations who belong to the class of ultra conservatives, yet it must be confessed that we are not generally ready to give a willing ear to the teachings of science as applied to our calling. Men outside of our ranks are in the habit of looking upon the employment of farmers as having a tendency to dwarf and belittle a man, and hence farmers themselves have been regarded as not quite on the same social level as men in other branches of business. "Only a farmer" is an expression of marked significance, as indicating the relative position of the farmer. Though very largely in the majority, farmers have but limited political influence, while their practical knowledge of all matters touching their interests is much needed in State and National legislation.

The first duty of the farmer is to himself. He must respect himself and respect his calling; thus making himself worthy the regard of all other men. He should practice a more intelligent economy in his business and household arrangements. He must invest the profits of his farm in his business and not in government bonds.

Farmers should avail themselves of the power and advantages of associated action. They are proverbially unsocial. When men live in isolated conditions, they drift back towards barbarism. They should form clubs in every town and village. Every meeting, however small, would be attended with good results. Farmers should do all in their power to lighten the burdens of their wives and daughters.

When they will rightfully discharge these duties, farmers will assume their rightful position in community, and the expression "only a farmer," will become obsolete.

At the close of the address a Farmers' and Mechanics' Club was formed, to hold its first meeting Monday evening, Feb. 15.

The exercises of the evening were enlivened by some excellent music by the "Rochester Glee Club," under the direction of Mr. G. H. Cooper. The occasion was highly enjoyed by all, and it is hoped it will be succeeded by many similar meetings. APOLLONIUS.

Rochester, Vt., Feb. 4, 1869.

PERCHERON HORSES.

Mr. W. Wilkinson, an English farmer who visited France in 1855, believing there was no better farm horses in the world than the English, appears to have been much pleased with a class of horses he saw in Paris. In an article in the *Journal of the Royal Agricultural Society*, he thus speaks of the Percheron horses:—

"These horses, walking so nimbly with great loads of stone, were not so fat as our own favorites, but they seemed to me to be doing twice the work. Although leaner, they bore the strictest scrutiny; the more I saw of them the more I admired them. Meeting Mr. Jonas Webb I called his attention to them. He said he had never seen such before; he had observed a horse taking into the show yard an immense load of provender, that astonished him beyond measure; he had resolved to try to buy him, but he lost sight of him that day and never saw him afterwards."

Mr. D. obtained a stallion which he called "Napoleon," of which he says:—

"He has been at work on my farm ever since, almost always with mares. I have never had so good, quiet, active, and powerful a horse before. He is unlike our English cart-horses, for with great size (16½ hands high) and immense substance, he shows a dash of blood. He has an Arabian head, not small, but of fine character, well proportioned to his size. The neck is very muscular and well turned, the shoulders large, very deep, without lumps on the sides, and oblique,—such a shape as would not be objected to for a riding horse; the bosom open, the fore legs magnificent and very short, with great bone, hard sinews, and little hair upon them. His feet are perfect in shape, and perfectly sound in work; his back short, rather dipped, round-shaped ribs, large loins, rather plain, drooping hind-quarters, very large thighs, low down, and tightly joined together with prodigiously powerful clean hocks, and very short hind legs, well under him. We never have had a difficulty with the engine or thrasher or with anything in the mud, that "Nap" could not extricate us from. His stock are as good and kind as possible. It is a saying with the men, that Nap's colts need no breaking. My mares are small and active; the stock are considerably larger than the dams, but so cleanly, that as foals they look more like carriage horses."

Late Swarming of Bees.—Very strong stocks, which have thrown off no early colonies or but one, sometimes divide again very late in the season, and, unless it be a very favorable one for the accumulation of stores, the colony will winter-kill for the lack of food. To prevent these late flights sufficient room for all to work should be furnished and the necessary air supplied to keep them from sweltering and becoming uneasy because of restricted space and want of adequate ventilation. They should be aided, too, if necessary, in the expulsion of their parasite enemies, thus relieving them from a species of irritation highly prejudicial to their well-being by rendering them dissatisfied with their old home.—*Rural New Yorker.*

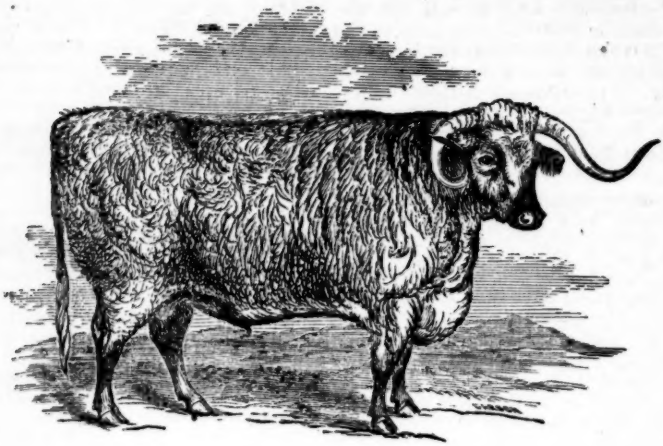
CULTIVATION OF PEACHES.

At a meeting of the Illinois State Horticultural Society, Dec. 15, Mr. B. Pullen read an essay upon the culture of peach trees, from which, as reported by the *Western Rural*, we make the following extract, which we think as applicable to Massachusetts as to Illinois:—

There can be but one opinion in reference to the importance of thorough cultivation up to a period of four years. After this, much diversity of opinion exists; some recommending a continuation of the practice, others partial cultivation and still others none at all. I have given each of these methods fair trial, and am satisfied with none but good, clean cultivation throughout the season of natural growth. Frequent stirring of the soil to the depth of three or four inches (and I would not advise a greater depth), keeps up the vigor of the trees, delays the formation of fruit buds until the proper season arrives, and acts, to some extent, as an insurance on the crop for the succeeding year.

In the section from which I write, (Southern Illinois) scarcely a season passes without our being visited with severe and continuous droughts in the months of August and September. Uncultivated orchards are at once checked in their growth, premature formation of fruit buds follow, with the falling of the leaves; the droughts are followed by copious rains, and pleasant weather. The result is the swelling of the fruit buds—and by failing to cultivate, we simply in this case, offer a premium for the destruction of our fruit crops by the winter cold.

I have an objection to the second practice, which I have termed partial cultivation, reference being had to the system, almost universally adopted, of cultivating in the early part of the season. While this is very far in advance of no cultivation, yet I feel that it is subject to the same objections, only not to the same extent. Careful cultivation secures to us trees of good constitution, full of life and vigor, while the fruit buds will inherit the same vigor, and both are better prepared to withstand the attacks of their enemies, whether they come from disease, summer drought, winter's blast or from the more puerile, yet none the less destructive enemy, insects.



THE ENGLISH LONG-HORNS.

So much is said now-a-days of the Short-horns, and their portraits are so frequently seen in agricultural papers, that we have thought that a brief description and an excellent picture of a race of cattle very different in many respects from the Durham, will be acceptable to our readers on the principle that variety is the spice of life.

It appears from Mr. Allen's remarks upon the history of this race in his *American Cattle*, that its origin is a disputed point, but he says that they have been known from time immemorial in the north-west counties of England and in Ireland. They have long been distinguished from the home-breeds of other counties by a disproportionate and frequently unbecoming length of horn. In the old breed this horn frequently projected nearly horizontal on either side, but as the cattle were improved, the horn assumed other directions; it hung down so that the animal could scarcely graze, or it curved so as to threaten to meet before the muzzle, and so also as to prevent the beast from grazing; or immediately under the jaw, and so to lock the lower jaw; or the points presented themselves against the bones of the nose and face, threatening to perforate them. In proportion as the breed became improved, the horns lengthened, and they are characteristically distinguished by the name of "The Long-horns."

Considerable attention was given to the improvement of this race by Mr. Bakewell and others, and in 1791 bulls were sold from $760 to $1250, and cows from $446 to $1365 each. But at the present time other breeds seem to be more popular in England than the old Long-horns.

Mr. Allen thinks that he saw in his boyhood distinctive marks of this race among the "native" cattle of New England, and says that some were imported into Kentucky about 1817, but they were not received with much favor and the Short-horns soon overshadowed them. He thinks he also saw a few in Ohio in 1821, but of which he can now find no other trace than the recollection of the old people of the neighborhood that one of the rich old settlers there once had some "imported" cattle.

Our cut, copied by permission from the *American Cattle*, represents a fat Long-horn ox. They feed well, and kindly. They *prove well*, and the quality of the flesh is fair, but not superior to that of other breeds, though they have many advocates in England.

As a dairy cow the Long-horn ranks high and is extensively used in some of the dairy counties of England.

On account of the long horns and somewhat depressed back this race is not a favorite as a working ox.

For the New England Farmer,

STOCK BREEDING AND WOOD GROWING.

The following abstract of the discussion of the Springfield, Vt., Farmers' Club, at its last meeting at the house of their Treasurer, D. O. Gill, President L. G. Cutler, in the chair, has been kindly furnished for our columns.

C. Horace Hubbard, Agricultural Editor of the *Record and Farmer*, opened the discussion. He spoke at length of the principles of breeding. He thought it unwise to use any grade male for breeding, no matter how fine the animal, as grades are incapable of begetting their equal upon females of inferior blood to themselves. He would always breed up, not down, having the male a thoroughbred.

Mr. H. M. Arms concurred in the remarks of Mr. Hubbard, and gave an interesting account of his method of breeding Short-horns. He believed good care and feeding essential to good breeding. Would never expose an animal in poor condition. Both parents should be strong and vigorous.

A. G. Gill said in order to breed for labor or fleetness, the sire should be a laboring animal, or at least have a plenty of vigorous exercise.

Mr. R. Colburn suggested that by drying off cows prematurely, in order to increase their condition before breeding them, in time their milk producing qualities would be injured.

J. R. Walker spoke of producing the different sexes with some degree of certainty. When the female was coupled in the first of her heat, the offspring would be likely to be a female, but when coupled in the last the progeny would oftener be male.

D. A. Gill, Esq., spoke of the influence of imagination upon the female at the time of coupling. His father had two bay mares, which were coupled with a bay sire, all of bay ancestors. Both colts had white legs, white noses, each a blear eye, and one of them a white ring around the body. At the time of coupling, there was running in the highway, and near his house, a sorry gelding, belonging to a neighbor, marked with a white nose, white legs, a blear eye and a white ring around the body.

Henry Safford said Vermont breeders excelled in raising horses and sheep. He thought it ill advised to use mares with heaves or blemishes for breeding, as the bad qualities were more apt to be transmitted to the offspring than the good ones. The Vermont Merino sheep, he said, was no humbug. Although they have been sold at prices entirely beyond their value, he considered them good property at their true value. By caring for every want, and judiciously coupling through many years, they have been brought to a very high standard of excellence, and they would continue to be sought by more careless breeders to give tone and energy to their neglected flocks.

A short essay was read by J. R. Walker on "Wood as a Crop." He believed that trees could be profitably grown as a crop, and cited an instance in town where $50 worth per acre had been grown in sixteen years. He had collected the statistics of the town, numbering about 3000 inhabitants, and found that in wood and ties about 9000 cords are used annually. In sawed lumber the town is now using at the rate of 2,064,000 feet per annum. Ellis, Britton & Eaton use for manufacturing cabs 750,000 feet. To furnish all this wood and timber would require 235 acres at 50 cords per acre. Should the present rate of consumption continue, and the whole amount be drawn from Springfield, the whole present supply would be exhausted in 14 years. Hence he argued that woodland should be fenced and protected, and trees grown upon the rough and poor pasture lands. As an investment for the next 50 years, he believed woodland would be a profitable one, and young growing timber a better legacy to leave to our children, than bank stock netting 10 per cent.

J. R. W.

Springfield, Vt., Feb. 8, 1869.

For the New England Farmer.

EAST VIRGINIA.

I have for two years read your paper with much satisfaction, directed to me at Charlestown, Jefferson County, West Virginia. As I have removed, please change direction of of paper to Matthews Court House, Hicks' Wharf, Virginia.

Many persons are writing to me, making inquiries as to lands in this section, more than I can answer. They inquire, first as to soil, health, price, timber, stone, fish, oysters, &c. Next, they ask, would emigrants be well received, and inquire about labor, and a thousand other things. I wish to say I am no land buyer, land seller, or land agent, and must caution the public that all said by such interested persons must be taken with many grains of allowance.

As to the quality of sand, the soil is generally light and sandy, and much of it requires draining, on the low grounds of some of the rivers, or rather the estuaries that run back from the ocean a few miles, generally navagable. The soil is good, very good. The low grounds in the vicinity of salt water are more healthy, probably, than any part of New England. Back from the water, chills in autumn may be expected, either by those acclimated or not acclimated. Timber is pine, oak, gum, chestnut, hickory, and on land thrown out of cultivation, of which there are large quantities, a dense growth of pine exclusively. There are no stones at all. Fruit trees grow much more vigorously than even in the rich lands of the valleys of Virginia, such as ap-

ples, pears, peaches, figs, quince, &c. Little attention, however, is paid to fruit cultivation, but it might be exceeding profitable. Any respectable settler would be warmly received, who will labor, as the freedmen will not work with any regularity, and no dependence can be placed on them as hirelings. Otherwise their conduct is very good.

Having taken no pains to inform myself, I can give little information as to prices of farms. A neighbor offers a farms of some 130 acres, very good house, immediately on East River, with plenty of wood, and within one mile of steamboat landing, by land or water; the oyster shore would pay at least, I judge, $1000 per year; fishing, crabs, &c. to your heart's content; certainly healthy location, at $5000. Another, adjoining, 300 acres, splendid oyster shore, for $10.000. Another, immediately on the bay, splendid water view, fine improvements, between 200 and 300 acres, for $8000 Another of 100 acres, with steamboat wharf on premises, trifling improvements, for $4000. There are plenty of chances to buy land, and with a reasonable capital plenty of chances to make money. Without capital would advise no one to think of emigrating to East Virginia. SAMUEL CLARK.

Matthews C. H., E. Va., Jan., 1869.

For the New England Farmer.

SMALL FRUITS.

I was pleased with an editorial in the FARMER a few weeks ago, upon raising small fruits. I think far too little attention is paid to that branch of gardening. Perhaps no fruit is more healthful or more easily raised than currants, and yet many farmers have scarcely a currant bush on their farms. For several years past the currant-worm has been very destructive in various parts of the country. In this region, the fruit and nearly all the bushes were destroyed two years ago. For a time it seemed as if currants were doomed, but a remedy has been found, and those who were fortunate enough to keep a few bushes alive, can cultivate them with a good prospect of success.

The root of White Hellebore, (*Veratrum Viride,*) powdered and sprinkled on the leaves, from a common pepper-box, will destroy the vermin, without injury to the fruit.

I had a few currant bushes last spring, which I had preserved from the ravages of the enemy. They started to grow finely, but soon the worms made their appearance. I went to the druggist and purchased a small quantity of Hellebore, and commenced powdering the leaves of my currant bushes, and the worms disappeared almost as soon as I left. I watched them carefully, but found no trouble with them afterwards. Whenever a leaf showed signs of a *raid*, I gave another dose of medicine. My currants ripened beautifully.

I intend to set out a considerable number of slips next spring. I consider the Cherry and White Grape varieties good enough, and shall cultivate them until I find some better kinds.

Black currants are also worthy of cultivation. The Black Naples is a fine variety, and very productive. At first it is unpleasant to some people, but it makes a fine jelly, and is a profitable crop to cultivate.

I hope others will take up the subject, and that many will be stimulated to raise more of this valuable, healthy fruit. GRANITE.

Bloomfield, C. W., 1869.

For the New England Farmer.

SOUTHDOWNS.

According to English writers there has existed from time immemorial a breed of sheep curiously marked with black faces and legs, while their bodies were covered with white wool. They took the name from that of the section of England where they were kept—the South Downs. They are reported as having been originally a hardy active sheep, with rather light quarters, thin fleece and well adapted to travel about after the somewhat scant supply furnished by the pastures they then occupied; but with the introduction of the system of feeding large crops of turnips upon the ground, with other nourishing food, and with more care in selecting the breeding stock, these sheep gradually changed in form, becoming broader in the back, shorter in the legs, with a better development of all the valuable parts, including the fleece.

The Southdowns have been introduced into this country by various importers from the flocks of Webb, Ellman, and other English breeders, and in the hands of J. C. Taylor, Thorne, and others have fully sustained their reputation as a hardy, quiet, prolific race, yielding a good fleece of wool adapted to a variety of clothing, and producing mutton of superior excellence.

In New England there are several flocks that are so well cared for that they are in no way likely to deteriorate. In Vermont, A. Bemis & Sons, East Burke, have a flock numbering about one hundred that comprise some premium animals and are very uniform in appearance. H. G. White, South Framingham, Mass., has a flock of good repute, and near Newport, R. I., is the flock of Thomas B. Buffum, Esq. This flock I have recently visited. It numbers sixty ewes, thirty-four lambs, eighteen bucks. On examining this flock one is quickly impressed with their uniformity, especially in the flock of breeding ewes. Among ordinary farmers the high condition of the ewes would excite apprehensions of misfortune in breeding, but Mr. B. entertains the same opinions as is held by other successful breeders that there are more animals injured by leanness than by fatness.

His objects in breeding are not only to retain

the present excellencies of form, but to increase the wool in thickness on all parts of the body, and in extent around the face and upon the legs and lower parts of the body. The buck used the present year has a light brown face and legs. It is evident that if breeders were so disposed they could in a few years radically change the complexion of these parts. With the darkest style, it is true the wool nearest the face has a dark color, but this breed has so long been distinguished in some degree by its color, that breeders would do well to adopt a standard of excellence towards which they will aim.

The bucks, being of different ages, are not quite as even in size, but they manifest the good quality of improving with age in length, thickness, style and weight. This flock is supposed to have been the first started on the island, and so well have they done that they are now found in all parts of it and in many places on the adjoining main land.

A. T. Peckham, South Portsmouth, R. I., has a flock from which he has killed several that dressed from sixty to eighty-three pounds of meat, which was sent to New York market where it was esteemed highly and sold at twenty cents a pound.

W. L. Sissons, Portsmouth, R. I., has a very even lot of fifteen ewes, and tells me that eight out of ten have twin lambs, and he had one lamb that dressed one hundred and eight pounds when less than a year old. It had an abundance of food and was a cosset. He has a flock of twenty-five lambs about ten months old, all of which are fine animals.

These breeders are quite unanimous in the belief that these sheep should not breed before they are two years old. The flock could be increased more rapidly if allowed to breed younger, but it would not only be an injury to the ewe, but the lambs from young ewes sometimes lack proper nourishment.

Mr. Buffum has done a good work for the country in devoting his attention to developing the good qualities of this breed of sheep, near a large city, where land is very high, and so many other pursuits tend to turn attention away from these animals. Those who have purchased and bred these sheep pure, or as crosses, seem to be sure they never will be obliged to sell as low as the store sheep from Merino crosses, and the use and appreciation of good mutton is likely to increase as care is taken to furnish it. Z. E. J.

Rhode Island, 1869.

For the New England Farmer.

CAN WE RAISE WHEAT?

HOME-MADE FERTILIZERS.

I notice in FARMER of January 23, an expression in favor of a Wheat Growers' Convention, which struck me favorably. I noticed also the remarks following in which you say one acre of land well manured, will grow 20 bushels wheat, or 50 bushels corn, or 150 bushels potatoes.

The question arises, which is the most profitable? I answer, they are all profitable. Let us have them all, and hay into the bargain.

How shall we do it? All lands that will grow wheat will not grow good potatoes. What of that? All cows that give a good pail of milk will not give good butter; but they may produce good cheese.

Now, I say, let every farmer consider himself lord of the soil, on whom all of God's human creation depend for sustenance; and let him act worthy of his calling, or else back down and give room for more wide awake lords of the earth.

The question arises, shall we send to Boston, New York, or some other distant city to get advise, compost, &c.? No; let us rather take Paul's advice to the women, "Learn at home."

Have a good mellow manure heap made in the course of the summer, from yarding the cattle on muck swamps, rich loam, with manure from the horse stable, hog yard, hen roost, backhouse, ashes and wash room.

After haying plough, say two acres for corn, turn it over completely. Then take and plough two acres of such land as you think will not grow corn or wheat, for potatoes. In the spring, harrow and plant corn, putting in the hill your mellow manure. Cart on to your potato land a light coat of your green dung, spread and harrow it in, then plant your potatoes. After haying, plough for your next years' planting. After harvesting, plough your corn and potato ground. In the spring put on a good coat of green dung and harrow well. Sow the corn land to wheat and grass, the potato land to oats or barley, as you like, and grass. After all is done sow on about twenty bushels ashes to the acre, if you can possibly get them, and nine cases out of ten, in the fall you will find you have good corn, good potatoes, good wheat, good oats, and the next season two tons of hay to the acre.

Now, young farmers,—I call you young, because I am an old man,—follow your hand, and in a few years you will find yourselves in possession of good "gilt edged" butter, cheese, pork, beef and potatoes for the market, and in want of a larger barn wherewithal to house your cattle and store your grain and hay.

It is very profitable to have some stimulating compost to put around the corn soon after the first hoeing. What shall we use? Have they got it in Boston? Yes; and so have you, my good fellow, if you will put your head and hands to work. If you have muck, use that for dry land; if not, go into the wettest place, the deadest hole you can find on your farm; dig anything you can get there; expose it to winter's frost, then put six bushels ashes to a cord of it; dissolve four pounds of copperas in water, procure one barrel of

chamberlye, and sprinkle the whole on the heap as you shovel it over, and at the same time add two bushels of slacked lime. Then pack it up under cover, and when you find by thrusting a stick into the mass that it is heating, shovel it over; this done a few times it is ready for use, and you have a good supply for one acre.

If the compost is designed for wet land, leave out the mold or muck, and use instead the dryest sand loam you have on the farm, and in the place of lime and copperas put in six bushels of hen dung or backhouse manure, and you have a compost for wet land, and need not go to any pick-pocket or money-bought advertisement to get the stimulant you need. You have the materials on your farm and are letting them lie dormant, rather than put your brains and hands to work, in proving all things and holding fast that which is good.

Brookfield, Vt., Feb., 1869. V. BAKER.

REMARKS.—Not long since a middle-aged man who participated in a convention composed of young and old men, on observing the little deference that was accorded to the opinions of the most aged members, remarked in a regretful tone, "I shall be afraid to grow old." We hope the time is far distant when the practical correspondents of the NEW ENGLAND FARMER will have occasion to utter a similar remark. To the five senses on which young people pride themselves, the aged add a sixth—the sense of experience—perhaps the most valuable of all. We therefore take much pleasure in publishing the counsel of the aged on agricultural matters, and assure them of a most hearty welcome to our columns.

GOOD CALVES.

The *Utica Herald* copies the statement recently made in our columns by Mr. W. F. Loomis, of Langdon, N. H., of his ten months old Durham grade steers which weigh 1400 pounds, and then says that a full blood Durham calf, raised by Mr. Oscar Calkins of Sherburne, N. Y., eight months old, and another seven months, raised by Mr. Joseph Sheffield, of the same place, were recently sold to a Utica butcher, which when dressed weighed 1110 pounds, realizing the handsome sum of $132.20.

The older one was fed on nothing but sour milk, uncooked corn meal and hay, not being allowed to taste a mouthful of grass or anything else to vitiate its appetite. When dressed it weighed 570 pounds, the leaf was equal to that of any hog, and the tallow was almost as white as snow.

The younger was fed scalded meal and milk, hay, grass and whatever else came handy. It was seven-eighths Durham, and appeared on foot much the fattest of the two; but on being dressed did not "prove" near as well. It dressed 540 pounds. The tallow had a creamy hue—whether the result of a strain of other blood or of the different mode of feeding, we cannot say. It is thought, however, that the promiscuous diet somewhat injured the appetite, and prevented the accummulation of tallow to the degree found in the older one.

PLOUGHS AND PLOUGHING.

REPORT ON THE TRIAL OF PLOUGHS, held at Utica by the New York State Agricultural Society, commencing September, 1867. With a Supplement, showing the results of a Special Trial at Brattleboro', Vt., to determine several disputed Questions respecting the Act on of the Plough.

We have before us the Report of these trials of ploughs, in a well-printed pamphlet of two hundred and eighty-eight pages, from the printing house of C. Van Benthuysen & Sons, of Albany. The Report is understood to have been drawn up by the chairman of the judges, Hon. JOHN STANTON GOULD, of Hudson, N. Y.

The first one hundred and thirty-four pages of the report are occupied in giving a history of the plough, beginning with the forked stick, that merely scratched or rooted a small mark in the ground. It then traces them down, through all the improvements, to the plough of to-day, that not only cuts a furrow one foot deep, but so completely pulverizes the soil, that the committee say that, at their trial, "there can be no doubt that the work was much better done than it could have been done by a spade."

Numerous illustrations are given which show the plough in all its forms. The first specimen given is copied from an ancient monument in Asia Minor, made wholly of the natural crooks of the branch of a tree, the only artificial contrivances being a short brace between the share and the beam, and three pins for the yoke to press against. It was with a plough like this, the report says, that the servants of Job were "ploughing in the field when the Sabeans came upon them and drove them away."

The first important improvement upon the forked stick is shown in a plough of the eleventh century. "It consisted of a simple wooden wedge, covered with strips of iron, one side being placed parallel to the plough's direction, the other sweeping over to the left hand, and leaving an unobstructed furrow for the next slice. A coulter, not unlike those now in use, is inserted in the beam, and a wheel is placed in front to regulate the depth. The idea of a wedge form for a plough had begun to dawn

upon men's minds, some using the wedge acting vertically, others laterally; but it existed in the minds of plough-makers in too vague and misty a form to be of much practical benefit. No one had as yet grasped the idea of combining the two wedges in the same implement, nor had they any idea of the curves by which this could be effected."

In the beginning of the last century, a plough was introduced into England from Holland, known as the "Rotherham plough," which was a great improvement on anything that had preceded it. This plough was rejected by the celebrated JETHRO TULL. It was not until near the beginning of this century that men began to think that the true principles involved in the construction of the plough, might be so ascertained and described that any good plough-maker should be able to follow them. Before this period, the old writers complain that, when the makers of good ploughs died, their art died with them. ARTHUR YOUNG says, "a very ingenious blacksmith made ploughs of iron, and yet when he died no one else could make them." The report says that THOMAS JEFFERSON "was the first to discern that the plough should consist of two wedges, one acting vertically and the other laterally, which should be so blended in the curve surface that the furrow should rise and turn over smoothly and continuously, and that it is impossible to over estimate the value of this contribution to agricultural science.

The first intimation of any idea, on Mr. Jefferson's part, the report states, of improving the plough, is found in his journal of a tour in Germany, made in the year 1788, when he was American Ambassador in France. In passing through Lorraine, he frequently alighted to observe the teams and implements of the farmers who were engaged in ploughing by the wayside. * * * Stopping for a night at Nancy, the capital of the ancient dutchy, he made an entry in his journal, from which the following is an extract. "Oxen plough here with collars and hames. The awkward figure of their mould-boards leads one to consider what should be its form. The offices of the mould-board are to receive the sod after the share has cut under it, to raise it gradually and to reverse it. The fore end of it, therefore, should be horizontal, to enter under the sod; and the hind end perpendicular, to throw it over; the intermediate surface changing gradually from the horizontal to the perpendicular. It should be as wide as the furrow, and of a length suited to the construction of the plough." There can be no doubt whatever that Mr. Jefferson is solely entitled to the honor of inventing the first mould-board plough on mathematical principles. He made descriptions and drawings and presented them to the celebrated DAVID RITTENHOUSE, of Philadelphia, who demonstrated that they were founded on mathematical principles.

JAMES SMALL, of Scotland was the first inventor of the cast-iron plough, and it is used to this day in many of the best cultivated districts in Scotland.

In 1785, Mr. Robert Ransom, of Ipswich, England, obtained a patent for making ploughshares of cast-iron.

The first cast-iron plough ever made in America was invented by CHARLES NEWBOLD. Mr. Newbold spent more than $30,000 in perfecting and introducing his plough and then abandoned the business in despair, as the farmers had in some way imbibed the strange notion that the cast-iron plow poisoned the land, injured its fertility and promoted the growth of weeds.

In July, 1814 Mr. JETHRO WOOD, of Scipio, N. Y., obtained a patent for a cast-iron plough, in which he had made such improvements as to fairly introduce it to general use.

In 1842, Messrs. NOURSE, RUGGLES & MASON introduced their famous "Eagle No. 2," which the committee say "retains its popularity to the present day."

In 1845, Gov. HOLBROOK, of Vermont, began to assist Mr. Nourse in improving his ploughs, and ultimately the Governor "devised a system by which if the longitudinal lines are carefully laid down upon the pattern, the vertical lines will be sure to come right." Thus Mr. Jefferson's plough has been perfected, and under the skilful hands of the Governor, won the great prize of 1867 at Utica.

Many other men besides those named "deserve honorable mention," as improvers of the iron plough, and among them J. Dutcher, of Durham, N. Y., John Mears and James H. Conklin. Daniel Webster believed in deep ploughing, and he made a plough to go a foot deep, and turn a furrow two feet wide. This plough was made in his own work-shop on his farm at Marshfield,—much of the work being done by his own hands. The principles on which he constructed this great plough were substantially the same as those adopted by Mr. Jefferson, but Webster gave greater length, proportionately, with more twist or overhang at the rear end, so as more surely to invert the sod in deep ploughing. Mr. Webster told Gov. Holbrook that "when he had hold of the handles of his big plough, with his oxen in a field just cleared of bushes and shrubs, and heard the roots crack, and saw the stumps go under the furrow out of sight, and observed the clear, mellow surface of the ploughed land, he felt more enthusiasm over the achievement than came from his encounters in public life at Washington." This mammoth Webster plough is fully illustrated in the report by engravings.

The foregoing is but a meagre abridgement of of the excellent *History of the Plough* contained in the report. In another paper, we propose to speak of some of the objects to be accomplished by ploughing, and what kind of an implement is best adapted to that purpose.

—Mixing hen feed with a strong suds of common soft soap is recommended both as a preventive and cure of gapes, by S. C. Hall, in *Rural New Yorker*.

CHEESE MANUFACTURERS.

We have just returned from the fourth annual meeting of the Massachusetts Cheese Manufacturers' Association, held in Barre, Feb. 18. We have not time to write out our impressions of this spirited meeting for this page. We must, however, say that it was well attended and the right spirit manifested. Mr. D. S. Ellis, one of the Vice-Presidents, presided; the President, Mr. Hollis Tidd, of New Braintree, having died since the last annual meeting. The following officers were elected for 1869:—

President—Thomas P. Root of Barre.
Vice-Presidents—William A. Warren, jr., of Hardwick, Lewis Sanderson of Petersham.
Secretary—N. S. Hubbard of Brimfield.
Treasurer—B. F. Hamilton of New Braintree.

We copy the following abstract of the reports from the several cheese manufactories represented in the meeting, from the *Daily Advertiser* of February 19th:—

Barre Central Cheese Company—Commenced to make cheese April 6th; closed Nov. 25. Number of pounds of milk received, 1,691,083. No of pounds of cheese made, 180 855. Pounds of milk for a pound of cured cheese, 9.35. Average price per 100 pounds, $14.50 net. Cost of manufacturing per 100 pounds, $2 27. Capital invested, $8000. Help employed, two males and one female. Cost of same, $1214.20.

Worcester County Cheese Factory, at Warren—Commenced to make cheese March 30th, closed Nov. 7. Average number of cows, 440. Number of pounds of milk received, 1 516,009, number of pounds of cheese made, 155 233. Pounds of milk for a pound of cured cheese, 9.76. Average price received per 100 pounds, $13.056. Cost of manufacturing per 100 pound, $2.25. Capital invested, $ 200. Help employed, two men and one woman. Cost of same, $1404 09.

Wilbraham Cheese Company—Commenced making cheese May 25th, closed Oct. 30. Average number of cows not stated. Number of pounds of milk received, 386,774. Number of pounds of cheese made, 40,117. Pounds of milk for a pound of cured cheese, 9 64. Average price per 100 pounds, $12.27 net. Cost of manufacturing per 100 pounds not stated. Capital invested, $2500. Help employed, one man and one extra ten weeks. Cost of same, $623 76.

Barre Cheese Company—Commenced to make cheese April 8th, closed Nov. 11. Average number of cows, 350. Number of pound of milk received, 1,326,224 Number of pounds of cheese made, 132,447. Pounds of milk for a pound of cured cheese, 10. Average price received per 100 pounds, $13.77 net. Cost of manufacturing per 100 pounds, $2 67. Capital invested, $ 200. Help employed, two males and one female. Cost of same, including board, $902.54.

Barre Southwest Cheese Factory—Commenced making cheese May 25, closed October 16. Average number of cows, 113. Number of pounds of milk received, 271,849. Number of pounds of cheese made, 24,920. Pounds of milk for a pound of cured cheese, 10 9-6. Average price received per 100 pounds, $16 20. Cost of manufacturing per 100 pounds, $2 87½. Capital invested, $650. Help employed, one man through the season and one woman half the time. Cost of same, $321. The milk was skimmed at night one half the time.

Petersham Cheese Company—Commenced May 6, closed Oct. 19. Average number of cows not stated. Number of pounds of milk received, 862,531. Number of pounds of cheese made, 89,386. Pounds of milk for a pound of cured cheese, 9 65. Average price received per 100 pounds, $12 93 net. Cost of manufacturing per 100 pounds, $2.35. Capital invested, $4500. Help employed, one man, one woman and one boy. Cost of same, $650.

Hardwick Central Cheese Company—Commenced April 6, closed Nov. 24. Average number of cows not stated. Number of pounds of milk received, 2,047,467. Number of pounds of cheese made, 206 570. Pounds of milk for a pound of cured cheese, 9 91. Average price received per 100 pounds, $14 441 net. Cost of manufacturing per 100 pounds, $2.347. Capital invested, $4250. Help employed, two men and one woman. Cost of same, $1426 98.

New Braintree Cheese Company—Commenced April 20, closed Dec. 1. Average number of cows, 475. Number of pounds of milk received, 1,919,815 Number of pounds of cheese made, 191,117. Pounds of milk for a pound of cured cheese 10 1.20. Average price received per 100 pounds, $13 80. Capital invested, $3000. Help employed, average 3½ hands. Cost of same, $1260 13.

From the above it will be seen that in the eight factories during the season of 1868, 1,020,645 pounds of cheese were made.

MILK PRODUCERS' MEETING.

A special meeting of the Massachusetts and New Hampshire Milk Producers' Association was held at Nashua, N. H., Feb. 16, to discuss the best stock and best feed for producing milk for the market. President Lyman Belknap, of Westboro', Mass., presided.

Wm. Ramsdell, of Milford, N. H., as reported by the *Boston Journal*, stated that the leading objects of the Association had been accomplished. It has a membership of over five hundred. A good understanding exists between farmer, contractor, peddler and consumer. Seventeen thousand gallons of milk, transported by steam, are consumed in Boston, every day. The tariff on transporting milk is very uniform, distance considered. Milk retails in Boston this year at nine cents per quart, Massachusetts measure. This gives the dairy farmer on the Peterboro' and Shirley road, the farthest point reached, five cents a quart at the depot. The contractor receives one cent for conveying it to the peddler, who thus gets three cents per quart for furnishing cans, delivering, &c.

Best Stock and best Feed for Milk.

Mr. Wright of Amherst, N. H. a farmer since 1831, who has sold milk for ten years, said he had kept native and Devon stock, but considered Durham superior. Generally feeds corn meal and cob meal together, sometimes shorts. Had found that oil meal has a tendency to cause cows to slip their calves. Considers eight quarts of milk a day during winter and twelve to fourteen on full feed a good yield per head. Didn't believe in cows giving twenty-two quarts a day.

Mr. Adams of Littleton, Mass., believed in crossing breeds. Looked at style and shape and general contour of the animal. Get a cow with a bright eye that "stands out."

Mr. Hutchinson, of Milford, considered Ayrshires better than Durhams. Obtained twelve quarts easily per day from the first named through winter.

Mr. Abbott, of Wilton, in selecting twenty cows, would choose from every breed, particularly the Ayrshire.

J. A. Harwood, of Littleton, Mass., thought

grade Durhams most profitable to fill milk cans, though he breeds and sells pure blood Short-horns. We need the thoroughbreds to get the grades. They are easily milked, and very docile. When not in milk they take on flesh rapidly. The Ayrshires he considered next to Durhams, but are fractious; the Dutch are large and coarse, hard to keep, give much poor milk; dislikes the Devon for milk, never knew a good one. The Durham and Ayrshire cross is a good stock for milk.

E. G. Newton, of Bedford, liked the native stock for quantity and holding out. Had several which each average fourteen quarts daily through the winter. He had fed oil meal a good deal and liked it. Had had serious trouble when feeding cotton seed meal by cows drying up, calving prematurely, &c.

Mr. Ramsdell said very few farms in Milford have rich grass enough to make it profitable to keep Durhams.

Mr. Rowell, of Westboro' kept from forty to fifty cows. From practical experience, he believed in grade Durhams; had one Hereford that gave over nineteen quarts rich milk, Massachusetts measure, some days more, for ninety-two days in succession, on nothing but grass. She sometimes gives two cans a day in winter, but objected to her spiteful disposition towards other stock and the women folks. Has an excellent seven-eighth Ayrshire and one-eighth Durham that gives a great quantity of milk.

President Belknap had tried natives—full-blooded Durhams, Ayrshires and grade Durhams. Was best satisfied with a crossed Durham; had some Ayrshires crossed with seven-eights Durham; liked Durhams because they are gentle and docile. They require rich pastures, but not much better than for Jerseys. Some will give twenty quarts per day six weeks after coming in. Preferred natives for crossing. Durham calves six weeks old dress from 90 to 120 pounds; others 75 to 90, and perhaps 100. When through milking Durhams you have a body to feed that will dress 600 to 700 lbs. On a butter farm would keep Jerseys, but to produce milk should use crossed Durhams.

Mr. Haskell, of Still River, Mass., had one Hereford which gives more milk than any other cow he ever owned. Now gives two seven-quart cans daily. A cross of thoroughbred bull with Durham gives best stock.

Mr. Hawkins, of Lancaster, Mass., stocked his farm with grade Durhams, and he had one which gave over 500 cans in a year. A half Ayrshire and half native filled 502 cans from November to November, and in February, second month after calving, 65 cans. Thought Durham cows require more feed than Ayrshires, because the weight of hay that satisfied an Ayrshire would not a Durham. Preferred Ayrshire and natives crossed. Sent two cans of milk to Boston to be analyzed. One specimen, called skim milk at home, from a Durham, was pronounced superior to yellow fluid from a noble Jersey cow. When testing the hay consumption, he was feeding a peck of roots and four quarts of shorts daily, and ninety pounds of hay per week.

Mr. Pillsbury of Londonderry fed five pounds of good hay three times a day, and a foddering of poorer hay at night. A 110 pound calf dropped by a Durham cow weighed 160 pounds in twenty-five days.

In the afternoon an address was delivered by Dr. George B. Loring of Salem.

Dr. L. preferred the Ayrshires. The general condition of New England farms requires medium sized animals. Short-horns in three or four generations, if haymows are scanty and corn bins not overloaded, will accommodate themselves to the situation by dwarfing in size. As to feeding cows in winter, he had tried every mode of feeding, steaming food, feeding dry hay, &c. He would not advise the use of steamed food. The apparatus is expensive and it takes a good deal of time. His present system was as follows: From 5 to 7 A. M., dry hay, equal parts early cut herds grass and "black hay;" 1½ pecks Mangel Wurtzels at 10 before watering; from 1 to 3.30 P. M., dry hay; at 4, half bushel chopped hay mixed with 4 quarts shorts. His cows never did better, and they were producing more milk than ever before. Young stock were simply fed with hay from 5 to 7 and 1 to 3. In spring, when mangel wurtzels are exhausted, 2 quarts cob meal with 3 quarts shorts, keep cows right along in the same milking condition as if receiving 1½ pecks turnips and the shorts. All the grain is incorporated in chopped feed. He had fed 40 cows for two years an average of three pints cotton seed meal apiece per day. After the first winter's feeding, they didn't seem to thrive. At the close of the second years' trial he had no perfect cows; some had three teats, some two and some one—none four. Four or five years afterward, having a half dozen cows from Vermont, he increased the daily ration of cotton seed meal to four quarts. One cow giving 16 quarts dried in July, and never rose above 6 quarts after calving in October. Milch cows should not eat corn meal, oil meal or cotton seed cake. Corn fodder, herdsgrass cut just as the bloom is ready to drop, shorts and mangels are all good. The poorest crop a farmer can raise to feed out in summer is green corn. It unduly stimulates the kidneys and bowels. Three acres of sugar millet will carry from 40 to 50 cows through the dry season. It is admirable food. Ruta bagas are excellent for cattle, cows, and young stock. Millet should be sown from May 20 to the middle of June, in order to have crops coming along at different seasons.

Mr. Adams of Littleton, milks at 6 A. M., feeds enough dry English hay to last 1½ hours; then meal; waters at 9; quiet until 12.30; then dry hay as in morning and quiet till 4; then hay; milks and waters. Allowance per day—15 lbs. English and 3 lbs. meadow hay, 4 lbs. shorts and 3¼ lbs. cotton seed meal. Expense 32½ cents. Nine cows give eleven cans per day; pront per head, $4.95 a month, manure paying for labor. Has always used green corn fodder, and thinks it helps the cows best to let it wilt a little.

Mr. Pillsbury milks in the morning before feeding at 6.30; gives 11 cows 55 lbs. hay three times a day; shorts and cotton seed meal dry; drink afterwards very heartily. From seven cows with good flow and two nearly dry gets ten cans milk daily.

J. W. Thatcher of Shirley, Mass., liked cut better than dry feed, as more natural. In summer his cows feed when the dew is on, and come down to the barnyard to drink about 3 P. M. His stock had not done as well as usual this winter, through not having time to cut their feed.

Mr. Hutchinson of Milford, feeds cut hay, four quarts shorts, and one quart cob meal wet with warm water, morning and evening. His cows generally drink three times a day. Cuts corn fodder in morning, pours on warm water and lets it stand until noon, without meal.

Mr. Hawkins of Lancaster, Mass., raises 1000 to 2000 bushels roots a year for 20 cows. When he can sell them for 50 cents a bushel, does so and invests the proceeds in shorts.

Mr. Rowell feeds two quarts oil meal in cut feed, shorts, and what hay a cow will eat in three hours, in two fodderings. Had probably handled over as much milk as any man in Boston in the last fifteen years, and could generally tell by testing the fluid what cows are fed on, whether mangel wurtzels, oil meal, &c. Did not believe good

salable milk that would satisfy customers can be made from roots. There is more body in 20 cans milk raised from oil meal, Indian meal and shorts, than in 25 cans produced from roots and shorts. The great aim should be to stimulate rich, creamy milk, not an indefinite amount of slops.

GOOD STEERS.—We noticed last year a pair of oxen fatted by Mr. Jonathan Slade of Somerset, Mass., that weighed 4400 pounds dressed. We understand that he has recently sold to Mr. A. White & Co., of Taunton, a pair of four-year-old steers that dressed off 3980 pounds, with a loss of only 20 per cent. of live weight in offal. They were very closely matched, and varied only six pounds in weight. Mr. Slade also fatted this season a litter of nine pigs, which at eight months of age averaged 373½ pounds. The good feeders have not all left New England.

AGRICULTURAL ITEMS.

—It is stated that the cherry trees are failing in the vicinity of Cleveland, and that large numbers are being dug up.

—An Australian inventor has built a machine for shearing sheep by steam, which it is hoped will prove a success.

—Southern men are boasting that this year's cotton crop is of more advantage to the country than all the gold California has ever produced.

—The Lexington, Ky., Farmers' *Journal* says that few farmers in that State are willing to exchange their country homes for a residence in town.

—H. G. White, of South Framingham, Mass., has sold the noted Short-horn bull, "Ninth Duke of Thorndale" and six heifers, to Mr. D. S. Pratt, of Brattleboro', Vt., for $3000.

When a ton of wheat is marketed it leaves nothing behind but $5 worth of straw. When a ton of meat is sold, it has left behind it a large portion of the manurial value of the food consumed in making it.

—The Maine farmers in convention at Augusta decided that the Orono, as it is called, was the best potato to grow in the State. It is also called the Carter, Reed and Foote potato, but the convention held to the name—Orono.

—Mr. A. Morse recently told the Craftsbury, Vt., Farmers' club that the hog brake may be destroyed by mowing three times in one season, cutting them each time about the time they reach their full stature. The third time there will be but few to mow.

—In the Western States and in Kentucky there is a singular epidemic among bees. In some cases whole swarms have disappeared leaving a good supply of honey. It is said that great numbers of dead bees are found about streams of water and on ice. No satisfactory cause has as yet been discovered for this unusual mortality.

—The Portland *Advertiser* says that the potato crop for 1868 is the heaviest since 1862, when there were exported from the State one million bushels. As less than half the usual quantity has come forward to market, the idea of an advance in prices under the influence of which farmers are still holding their crops bids fair to be disappointed.

—The *Prairie Farmer* says that the State of Indiana has as yet made no effort to establish her agricultural college. The land scrip has been sold, amounting to $212,238 50, and the proceeds invested in 5-20 bonds. Gov. Baker reports to Congress that it is believed the present legislature will act upon the subject of the location of the college.

—Mr. A. B. Tilson, of Sidney, informs the *Maine Farmer* that he sowed one and three-fourths acres of wheat the first of May last, from which he harvested twenty-seven bushels. On a portion of the field he put one bushel of salt, and on another a mixture of ashes, plaster and lime, but saw no difference. The variety sown was the Canada Club.

—Emmet Wells, who reports the New York hop market for the *Utica Herald*, says there is a scarcity of fine hops, and that an early and material advance in the price of such would not be surprising, but that there is no hope of improvement in the price of medium and low grades. There is a large exportation to Europe. In two weeks 3839 bales were shipped from New York.

—If old hay is well stacked, or in the barn, it is worth about as much the second year as the first. It is a good plan to keep over a few stacks to meet the emergency of a short hay crop. It is a poor plan to buy hay when it bears the highest price. The most thrifty farmers have hay to sell in years of short grass crops, and the extra price pays very well for keeping.

—The President of the State Agricultural Association, Michigan, in his annual report, condemns the system of instruction pursued at the Michigan Agricultural College, on the ground that the students generally abandon farming after graduating, instead of becoming "model" farmers. He thinks the object of the Agricultural College ought to be to train young men to be farmers.

—To illustrate the injurious effects of fall-feeding grass land, Mr. I. D. R. Collins, at a meeting of the Craftsbury, Vt., Farmers' Club, said, "I have three-fourths of an acre of land which I fenced in with my garden some years ago, since which no cattle have been on it fall or spring, and it will produce good crops of grass twice as long as precisely similar land the other side of the fence treated with the same amount of manure."

—James L. Ingolsbe, a farmer of South Hartford, Washington county, N. Y., cooks all the food

eaten by his stock of cattle, except hay—using for the purpose a six-horse engine with the necessary steam vats. Last summer he pitched all the hay in his barn with the engine, sawed his wood with it and threshed all his grain. He has a large herd of cattle, and he claims that they do much better on cooked food than upon the raw.

—A New Hampshire paper says: "A red squirrel was recently caught in the barn of D. C. Brown, of Berlin, which had in less than three months' time carried two bushels of corn up a flight of stairs and safely stowed it away for future use. The same squirrel, it is thought, some two years since carried up stairs a barrel of ears of corn, and to make a sure thing of it bottled them up by dropping them through the bung hole of a cider barrel, in which Mr. Brown found them."

—Charles F. Quinby, of Rangely, informs the *Maine Farmer* that he raised 29½ bushels of wheat, thresher's measure, on one and one-fourth acres of ground; on half an acre of which he raised potatoes, half an acre oats, and the rest corn and beans last year. The oat and potato ground was ploughed the fall before, on which twelve cartloads of barnyard manure were spread and harrowed in. The first day of April he sowed two and a half bushels of wheat on the piece.

—In addition to the utmost neatness in washing the milkroom and all vessels used for milk and cream, the *Prairie Farmer* recommends that dishes containing pulverized charcoal be placed about the room to absorb ammonia and other gases that cannot be otherwise removed. The charcoal should be freshly prepared, and by heating it after it has become partially saturated with gases, they are driven off and the charcoal rendered as effectual as at first.

—According to experiments made in England by Mr. Lawes, the proportion of offal to each 100 pounds of live weight, made on the bodies of sixteen oxen, two hundred and forty-nine sheep and fifty-nine hogs, was as follows:—In oxen, 38.9 pounds; sheep, 40.3 pounds; hogs, 16.7 pounds. The proportion of the stomach and contents was, on an average, in oxen, 11½ pounds; in sheep, 7½ pounds; in hogs, 1¾ pounds; of the intestines in oxen, 2¾ pounds; in sheep, 3½ pounds; hogs 6¼ pounds.

—A correspondent of the *Prairie Farmer*, in discussing the question whether the hazel bush, which at the West is considered a reliable indication of good soil, is the cause or the result of fertile land, says, in the first place, the hazel is an earth worker; its roots spread wide and extend deep, going much below the greatest depth ever reached by the sub-soil plough. These roots, when they decay, form minute drains for the passage of water and air; while the wood of which they are composed, goes to the nourishment of plants. The branches and foliage stop the movements of the carbonic acid as it is carried along in the air, and cause it to be readily taken up by the leaves. These leaves in turn fall to the ground, and in this manner help to manure the land. Thus the hazel bush digs the soil, drains it, waters it, and manures it by substances taken from the air. Clover is supposed to do about the same thing.

—A correspondent of the *Rural New Yorker* says, the only way that I know for keeping chestnuts in good order for planting is to gather them from the tree while *green*, and put up barrels with one layer of dirt and one of chestnuts. That is the only way that they can be kept green; for if packed without dirt they will heat and not come up, and if they are dried in the sun they will not germinate. They may be sown broadcast on the land and ploughed in. The fall is the best time to plant or sow them.

—A Missouri farmer writes to the *Utica Herald*, that like all other warm Western States, Missouri has her malarious diseases, but they yield readily to medicine and care, and are not much dreaded. Lung diseases are much more seldom here than in the East. Mankind seldom cough here. Horses never heave, so far as I have seen. We have much more sunshine, consequently less cloudy and damp weather. Our heat is a little greater and a little more enervating, but we seldom have what you call sultry weather, but commonly a refreshing breeze. Sometimes a day comes when we like to sit in the shade and sing softly—"blow, breezes blow."

EXTRACTS AND REPLIES.

KICKING COWS.

I have for a number of years succeeded in breaking the worst of cows and heifers of kicking by taking a piece of bed cord, make a loop large enough for the cord to slip through easily; then put the cord around the cow's hind legs, just above the gambrel joints; slip the end through the loop and draw the legs together by pulling upon the cord. The cow will try to kick, but hold the cord so tight that she cannot get her legs at liberty, and she will soon give it up. Now hold on to the cord while another person milks. In this way I not only break my heifers of kicking, but of stepping about, which is nearly as bad. After two or three milkings if they continue to plague, I buckle a strap about the hind legs, then sit down and milk as though I had a gentle cow, which is sure to be the case in a short time. A FARMER.

Dudley, Mass., Jan., 1869.

—

I wish to inform your Long Plain correspondent, and all the rest of mankind, of a better way to break a kicking cow, than to clinch her dirty hind leg and hold it up as high as her head. Just place a log chain across the cow, back of the shoulders, while milking, for a week or so, then a light chain or even a rope will answer. In ten or twelve days she will be as gentle as her mother ever was.

Newfane, Vt., Jan. 13, 1869. S. G. BROWN.

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To break a cow of the habit of kicking, I make a stall at one end of the stable just wide enough for her to stand in. This will require two posts

and two planks. One post is set up by the cow's shoulder and the other a little back of her hind legs, as she stands in the stanchion. On the inside of the posts spike on one plank so that the middle of it will be even with her shoulders and rump, and the other plank as low down as may be without being in the way of milking. Then make a mortice through the hind post and a corresponding one into the side of the stable opposite, for a slat to come up just above the cow's gambrels. This slat is to be put between her legs when milking. Another slat is mortised into the upper plank and the opposite side of the stable,—to pass over the cow's back and low enough to depress her back two or three inches. These slats are movable and are to be put in place after the cow is fastened in the stanchion. This done, cut your finger nails and as gently as possible go to milking. The top slat is designed to prevent the cow holding up her milk, and will be needed but a short time. In this "fiddle," as the boys call it, the cow finds she cannot kick and soon gives up all attempts to do so, and both slats may soon be left out. R. PARKER.

Corinth, Vt., Jan. 10, 1869.

REMARKS.—After receiving this letter we wrote to Mr. Parker saying we should fear that a spirited cow put into such a "machine" would be likely to injure herself, and especially her bag, on the slat placed between her legs. To this he replied that he had never known of one being injured. He says, "the worst cow I ever saw was put into such a stall, and in three weeks all that need be done was to drive her in and she would stand perfectly still."

My method of treating kicking cows is to make a slip noose in the middle of a good sized rope of sufficient length; slip the noose around the right hind leg and tie the end to a ring in the stable floor in such a manner as to prevent the cow from moving her leg towards the milk pail. She will soon find herself outwitted, and may be milked without the rope. I have broken a large strong cow of kicking and running in summer, by tying her in a similar manner to a fence post, so situated that she could not run around it. After a few attempts to run, she became thoroughly subdued. I never had a cow lamed or injured in this way.

C.

SUPERPHOSPHATE.

Your correspondent, "W. S. A.," asks some reader of the FARMER to give some information in relation to the use of superphosphate. I purchased one barrel of Bradley's last spring and tried it on various crops. And in no case could I see any benefit from its use, except on corn. On green sward, just turned over, I spread my green stable manure liberally, and harrowed thoroughly. As an experiment, I planted eight rows, four with and four without the phosphate. In applying the phosphate I dropped one tablespoonful in each hill and mixed it well with the soil.

All through the season, there was a marked difference in *color* and *growth* of stalk, and when stooked in the fall, (each four rows were cut and stooked by themselves) there was a marked difference in the *size* and *heighth* of stooks. Thus much in favor of the phosphate. But the true test, to my mind, was yet to come. I husked each row of stooks in the field, and there were just 18 bushels of ears in each row; so I conclude that I am out of pocket seven or eight dollars, except the value of a little more fodder. I shall pay no more such prices for such articles. I shall make my own fertilizer this year, recommended in the Boston *Journal of Chemistry*, (a monthly publication, by the way, every farmer should have, at only 50 cents a year). One barrel of fresh, raw ground bone, and the same quantity of good ashes wet with water to a proper consistency. Use a handful to a hill. TIMOTHY WHEELER.

Waterbury Centre, Vt., Feb., 1869.

MASSACHUSETTS AGRICULTURAL COLLEGE.

Will the FARMER, or those who know, inform all who have sons at the Massachusetts Agricultural College who are trying to work their way through that institution single handed, why they are paid only ten cents an hour for their labor on the farm, while other help receive three dollars per day for the same labor. ONE INTERESTED.

Dudley, Mass., Feb. 6, 1869.

REMARKS.—Want of funds, we have no doubt, is the true answer to your question. Much of the labor of the students is probably expended upon the improvement and preparation of the land and premises, from which no immediate cash return is received. We must refer you to a comunication from "N. S. T.," in the FARMER of February 6, in which he alludes particularly to this point, and says one of the immediate wants of the college "is money to pay the students for their work." Amherst has a fund of $100,000 for a similar purpose. Who will step forward and give the Agricultural College a like or larger sum, the interest of which shall be devoted to paying the students better prices for their labor? We understand that the actual running expenses of Harvard College, with all its accummulated facilities, are about $150,000 a year. Why should the Agricultural College be expected to make brick without straw, or to educate young men much cheaper than other institutions?

RECIPROCITY.

The following statement of imports from the Province of Canada, taken from the Report of the Secretary of the Treasury, for the fiscal year, ending 30th June, 1867, illustrate the subject of Reciprocity and the interest which our farmers have to oppose such a policy.

Total imports exclusive of specie:—

1865	$27,595 661
1866	40,989 661
1867	19,758,474

Therefore, the abrogation of the treaty reduced imports from the province of Canada over 50 per cent. Yet in 1857, and under the present tariff the following are some of the items of farm products that were imported, and show our farmers what they have at stake in the settlement of this question of Reciprocity:—

Live animals of all kinds, 1,902,360; butter, 3,629,837 lbs.; cheese, 50,195 lbs.; fruit, $27,469; hides, $73,912; hops, 79,258 lbs.; beef and pork, 708,628 lbs.; bacon, 368,145 lbs.; potatoes, 181,020 bushels; lard, 38,720 lbs.; vinegar, 119,220 gallons; wheat, 1,923,524 bushels; flour, 232,966 bbls.; rye, 242,538 bushels; barley, 3,247,005 bushels; oats, 681,440 bushels; oat meal, 13,374 cwt.; boards, 413,375 M.; rough timber, $413,401; other timber, $1,539,314; wood, 139,318 cords; shingles, $35,061; free of duty, $7,482,726; wool, imports large, but much was shipped to England, where they get their supplies of foreign articles.

The amount paid into our treasury for duties in

1867, was $5,400,000, which helped pay our taxes, or debts. We believe that when the above products were landed in our markets and *duties paid*, they cost their producers less than our products did our farmers; for land, taxes, labor, clothing, board, &c., are about 50 per cent. lower in Canada than in New England. We may live to see our farmers sold again by Reciprocity.

Middlesex, Mass., 1869. A FARMER.

BONES AND OTHER FEED FOR HENS.

I see by the last FARMER that Mr. Thos. Snell cannot find suitable bone meal for his hens. With your permission, I will give my mode of feeding bones to hens: I burn them until I can pound them easily with any light instrument, or even with the heel of my boot; and if any are left so large that the hens cannot swallow them, I then pound them finer. I use any bones I happen to have, whether large or small. I think the burning does not change or injure any principle of the bone. In feeding my hens, I give that which I think will do the best for the purpose for which I feed. If eggs are my object, I feed on corn, oats, boiled potatoes mixed with bran or oat meal, or any other feed that does not tend to fatten them; if I wish to fatten them to kill, I feed on corn meal made into dough by scalding, mixed with boiled potatoes, and two or three times a week give them a feed of curd, made by scalding sour milk. They fatten very fast on this feed. Curd is the best feed for young chickens or turkeys.

Lancaster, N. H., Jan. 28, 1869. Z. BLACK.

P. S.—As I am not in the habit of writing for publication, you will pardon imperfections. If you would like, and will take the trouble to correct errors, perhaps I may give some account of farms and farming up here in upper Coos. Z. B.

REMARKS.—We shall certainly be much pleased to receive any account of farms and farming in "Upper Coos;" that you can find time to furnish; and, judging from the foregoing, we think our part of the covenant will be pretty easily performed. Farmers in one section like to hear from farmers in other sections of the country. Don't forget your promise.

CATTLE FEED.

To make beef and milk, which of the various kinds of feed shall we use? We have our choice of corn, oil cake, cotton seed meal, shorts and middlings, but do not know what to buy. We meet men engaged in manufacturing milk, and hear one denounce cotton seed meal and another praise it; a third man is ready to tell of his success in making milk and flesh with shorts and hay, giving great credit to shorts, while another's cows were growing poor with the same feed, viz: shorts and hay. Supposing there is a difference in the value of shorts, and knowing there are different qualities of hay, we are still in doubt what to buy. There has been but little said of the different qualities of hay, in the reports of farmers' discussions. I believe that much of the difference resulting from the various methods of feeding is owing to the different qualities of the hay used, and feeling sure that what is termed *good* hay by farmers generally is not the best, and believing, likewise, that they seldom know which their best hay is, I have lost all hope of learning the relative value of grains in that way. How are we to learn? Not by our own experience, for we are not scientific or systematic enough to determine the question. Were it not that we compete with others who are just as much in the dark as ourselves, our failure would be sure. Since, as producers, we *must* live, the consumers have to pay for our ignorance. If some scientific and philanthropic man, who would give to the millions cheap food, will tell us what combination of grass and grain will produce the most milk and meat for the least money we will willingly (as we should be forced by competition to do) give to the consumers the benefit of the information. F.

Mast Yard, N. H., Feb., 1869.

SYKES' PLOUGHS—RAPE.

In an account of the New England Plough trial, the Hines and Sykes' Swivel plough is spoken of as the best on trial. Where can I find said Sykes plough?

In the FARMER rape is spoken of for soiling cows. Some say rape is millet, others that it is kale. Please tell me what it is.

JUDSON THOMPSON.

Morrisville, Vt., Feb. 11, 1869.

REMARKS.—We do not know where that plough is made or sold, and doubt whether it is any better than those advertised in our columns.

Webster's dictionary gives the following botanical description of rape: "A plant of several species of the genus *Brassica*, belonging to the cabbage tribe, especially *B. napus*, and also *B. campestres*, much cultivated for their roots, which resemble the turnip, and afford a valuable food for sheep and cattle, and for their seeds, from which oil is extracted." Mr. Burr says the best variety for oil is not sufficiently hardy for the Northern States. The more hardy varieties he thinks might succeed here.

CHANGING SHEEP FOR COWS.

The wool growers are having dull times now, and some are thinking of changing their sheep for cows. I would like, with your leave, to ask them a few questions. Will it be safe business to change sheep for cows at this time? If they do so, how long will it be before prices of dairy products will fall, so that they will be worse off than they are now? Is not the importation of foreign wool the cause of all this trouble? How long will farmers sit still and let the importers have the market under their control? Is there any good reason under heaven why this nation should buy of foreign nations what we can raise to as good profit as we can wool? Why not organize a grand movement of wool growers; call every man of them, and invite the dairymen to join them, and perhaps now that the Pennsylvanians have their ore beds well railed over with English iron they will join the movement, and all go to Congress, and, if petition will not do, demand in respectful language such a recognition of the agricultural and mining interests of the country as shall make our nation truly independent? W. S. GROW.

Westboro', Mass., Feb. 16, 1869.

ANSON, ME.

This town is in all probability the most extensive wool growing town of its size in the State of Maine. It contains about thirty-six square miles, and is estimated to feed 20,000 sheep this winter, mostly merinos, and that its clip next spring will be about 100,000 pounds of wool. Great interest is manifested in the wool market, as many farmers have on hand from 1000 to 5000 pounds waiting for a rise in the market; for some of which one dollar per pound has been refused. Sheep have been bought and sold in this town for a thousand dollars per head, which can be bought back, or

their equals, for ten dollars to-day. Farmers sometimes allow "the golden opportunity" to pass unimproved. Ability to raise large crops or fine stock is only one of the elements of successful farming. A knowledge of the markets, and of the best mode and time for disposing of our products to the best advantage have become a necessity to every producer. This requires the exercise of a sound judgment and a careful calculation. One needs a firm nerve to sell on a rising market, and from want of such nerve many good bargains are allowed to slip out of one's fingers. Some time since one man in this section refused, on an advancing market, an offer of $30 per ton for a lot of hay which he finally drew eight miles and sold for $10 per ton,—making a difference of some $4000 in a single trade. While telling farmers how to plant and how to reap, our agricultural papers would do well to furnish us with the means of forming an intelligent opinion as to the present and prospective condition of the markets of the country. ZEN.

Anson, Me., Feb., 1869.

THE CANKER WORM.

The canker-worm made its appearance in this town and Dover year before last, but did no serious injury, but last year it was quite destructive in certain localities. Will you or some of your correspondents inform me through the FARMER what is the best and most economical method to protect the trees against this terrible pest?

U. A. ROBERTS.

Rollinsford, N. H., Jan. 28, 1869.

REMARKS.—One of the surest and most economical modes, in our opinion, is to *tar the trees.* Of late a cheap kind of printer's ink is used by many instead of tar. This process will require some knowledge of the habits of the insect, and when begun must be faithfully followed up.

The wooden boxes used and recommended by our correspondent, Mr. G. B. Moulton, of Kensington, N. H., have proved efficient in many cases. Among others we may mention the large orchard of Messrs. F. and L. Clapp, of Dorchester, which has been fruitful for several years past, while others in its immediate vicinity have been badly ravaged by the canker worm. We have seen the trees of this orchard in full foliage and loaded with fruit, while neighboring orchards were entirely stripped, and of course without fruit. Indeed so successful have been these gentlemen by the use of these wooden boxes and oil, that they received a greater amount of premiums on fruit at the exhibitions of the Massachusetts Horticultural Society in 1867 than any other competitors.

We republish Mr. Moulton's description of these boxes and of their use.

"In the spring of 1865 I placed wooden boxes, ten inches high, around all these trees, allowing a space of two inches between the tree and the inside of the box. It would have been better to have left a space of three inches. I filled the inside with tan, and made it solid by pressing it down with a strip of board. The gutter around the boxes was placed about three inches from the top; the corners being made tight with roofing cement; and a clapboard was nailed on the top edge of the boxes, so as to form a roof over the gutter. I filled the troughs with 'bug oil,' which can be obtained in Boston at from twenty to twenty-five cents per gallon. This I prefer to coal oil, because it will not skim over; while the coal oil will skim over in forty-eight hours and afford a bridge for the grubs. There are two kinds of this bug oil—the thin and the thick. I prefer the thick for wooden troughs, as the thin is liable to leak out. When they run the thickest, the surface of the oil needs to be cleared off as often as once in two days. I use a piece of lathe for this purpose, and a tin quart measure with a long lip to turn in the oil.

"The cost of these boxes is not great. I paid seventeen cents a piece for making the boxes, and found the stuff. Any kind of cheap boards will answer. For the gutter two-inch stuff of good quality should be used. I purchased second-hand tubing used for chain pumps which cost two cents per foot. Dividing this, my troughs cost one cent per foot. Some that I had made, cost two cents per foot for making. The clapboard should be of good quality, so that it will not crack by the weather. My trees are very large, and some of my boxes were about ten feet around them. I estimate the boards at seven cents per box—troughs ten cents, and clapboards at three cents—making the whole cost of boxes at thirty-seven cents per tree; and the whole cost of oil, tan, and labor, not to exceed one dollar. For any ordinary orchard, this would not exceed fifty cents per tree. It takes, for troughs of this size, about one quart of oil at a time."

Various other ways have been contrived, all more or less expensive and troublesome, but none have come to our kowledge that are certain preventives, and that are sufficiently economical to justify their use.

HUMBUGS.—USES OF MUCK.

I often see notices in different papers of receipts for making manures; for instance, A. says, "send me five dollars, and I will send you a receipt for making a very valuable manure," &c., &c. Now this may all be very well, and then it may all be humbug; who knows? What assurance have we of the good faith of the advertiser? What we want in this vicinity is a cheap ingredient that we can mix with meadow muck, and make it into a fertilizer. Most of our farmers have plenty of muck on or near their farms. If any of your readers can give the desired information, they will confer a great favor on your subscribers in this part of the State. L.

Winchendon, Mass., Jan., 1869.

REMARKS.—It is a pretty good general rule never to pay money for property until you have seen it. It is far better to purchase wood ashes, lime, damaged potash, saltpetre, &c., and mix with the muck. Any of these things mixed with good muck, will give you a dressing which will soon make your fields glad. But the muck alone is manure. It is nearly all decayed vegetable matter, and if applied and worked in, will soon make a change for the better, even on granite or heavy soils. On sandy loams it will prove highly beneficial at once.

FAILURE OF APPLE ORCHARDS.

I have seen in the FARMER and other papers complaints that apple trees do not bear as they used to do, and I thought I would say a few words why, in my feeble opinion, they do not, especially in this vicinity. One great cause is neglect. The orchards in this vicinity are mostly old and have not had any care, not even the ground ploughed, for over thirty years, and not a shovelful of ma-

nure applied to keep up the fertility of the soil; and yet the owners complain that their orchards do not bear as formerly. If we plant any other crop we have to apply manure or none would expect it to pay. I know from experience that it pays to keep an orchard well cultivated, as the last year has proved it to my satisfaction. While other orchards in this vicinity that promised as well in the spring as mine did, bore very few apples, mine was so loaded that I had to prop up the limbs to keep them from breaking down. Mine was cultivated; the others were not. Now I think if farmers would cultivate their orchards as they do the rest of their farms they would in most cases raise more fruit than they do now. J. W. R.

Biddeford, Me., Feb. 25, 1869.

BRAHMA FOWLS AND MUSCOVY DUCKS.

The following is my account for the year past. Owing to the wet season and to cats I lost about 200 chickens and 19 ducks, and consequently my balance sheet shows a small profit:—

Stock, January 1, 1868.		*Dr.*
45 fowls at 75 cts. each	$33 75	
12 ducks at 75 cts.	9 00	
52 late chickens at 50 cts.	26 00	
		$68 75
Cost of Food.		
Bo't 68 bush. corn, $74.80; 38 do. oats, $34 45	109 25	
" 26 bush. meal, $31.80; 26 bush. C. corn, $31.80	63 60	
" 34 bush. fine feed, $16.20; 695 lbs. scraps, $16.54	32 74	
" 12 fowls, $16; 2 Guinea fowls, $2	18 00	
" 4 ducks, $5.50; 1 doz. eggs, 50 cts.	6 00	
" 1 bbl. lime, labor and repair	14 49	
Dressing poultry	9 00	
		253 08
Other expenses.		
54 doz. & 2 hens' eggs set, 41c ₩ doz.	22 21	
14 doz. ducks eggs, 44c ₩ doz.	6 16	
		28 37
Total,		$350 20
Stock, Jan. 1, 1869.		*Cr.*
38 fowls at 75 cts. each	$28 50	
13 ducks at 75 cts.	9 75	
4 Guinea fowls, $4; 20 chickens at 50c, $10	14 00	
		$52 25
Stock and Eggs sold.		
152 chickens	101 05	
102 ducks	105 74	
220 doz. hens' eggs, average 41c	90.20	
25 doz. and 10 ducks' eggs, 44c	11 33	
39 bbls. manure	89 40	
		347 32
Used in family.		
53½ doz. hens' eggs, at 41c	21 93	
19 doz. and 1 ducks' egg, at 44c	8 40	
		30 33
Total,		$429 90
Cost and expenses		350 20
Profit		$79 70

Showing 327¾ dozen hens eggs laid during the year; 59 dozen, less one, duck's eggs; 377 chickens and 121 ducks hatched. It will be noticed that while I sold my Brahma eggs at 41 to 44 cents per dozen, the dealers in fancy eggs were selling at $2 per dozen. JAMES BUFFINGTON.

Salem, Mass., 1869.

MANURE AND SUPERPHOSPHATES FOR POTATOES.

I have just finished assorting my potatoes,—Harrison's, Seedlings and Orono. A part of each kind was raised with Bradley's Superphosphate, and part with barn yard manure only. I have kept them separate in my cellar, and I find those raised with Phosphate are mostly sound, not half a bushel damaged in twelve hundred bushels, while those raised with barn yard manure, are at least one-sixth rotten. The potatoes were planted about the same time and had about equal chances and equal care. Those raised with phosphate yielded at least twenty per cent. more than those raised without the phosphate. Now will some of your scientific farmers tell us the reason of this, and also the reason why so much trouble with rotten potatoes of late years? I raised potatoes before I ever saw Bradley's Phosphate, and had no trouble with their rotting. There must be a cause for this. Please state your views. Is it not because our soils are exhausted of bone and thus fail to give the potato what it requires to make it healthy? V. K. WARREN.

Tufts' Farm, College Hill, Somerville, Mass., Feb. 12, 1868.

CURE FOR SCRATCHES.

Not quite two weeks ago I found that the horse I am using was very much afflicted about the pasturn joints and ankles of both of its fore feet, with what is called grease or scratches. I immediately washed the parts affected with warm soap suds, and wiped as dry as I could, and then bathed thoroughly with benzine, and rubbed it well in with a rag or my hand. I pursued this course daily for about a week, when I found that all the sores on one leg had healed, leaving the skin soft and smooth, and the others had nearly healed. I used my horse nearly every day and did not change her feed only to give two or three messes of potatoes sprinkled with sulphur and saltpetre. It is the simplest and cheapest remedy I have ever found, and I think it might be used as a preventive.

Bernardston, Mass., Feb. 15, 1869. S. BARKER.

QUALITY OF THE HARRISON POTATO.

Of your contributors who have given us their success in raising the Harrison potato, I do not recollect that any one has said much about the quality of them for cooking. I am disappointed in mine. They are not as good as I expected, from what was said of them last year. To obtain the opinion of others as to their quality, I left some of them one week last November with eight or ten of my customers whom I had been supplying with the Jackson white, or more properly the Orono, but without informing them of the change. The next week most of them complained of the potatoes that I left the week before. Some said that they did not cook even; that part of the potato would be hard when the other end was cooked sufficiently. Perhaps under some circumstances they might be grown so as to be a good table potato. They need a long season to ripen well. My vines were green when the blight came, and I think I did not hill them up so much as I should have done. They are disposed to grow out of ground, and many of them are sun-burnt. I shall try them another year. WM. R. PUTNAM.

Danvers, Mass., Feb. 4, 1869.

PROSPECTS AND DUTIES OF WOOL GROWERS.

In your issue of January 30, I noticed an article headed "Wool at the Custom Houses," which closed with this question, "Is it a good time for wool growers' associations to go to sleep?" I answer, no! It is high time to awake and do what we can to protect and encourage wool growing in the Eastern States. We have had a hard time for the past three years, but, in my opinion, we have seen the worst of it, and may expect better times for three years to come, if we are true to ourselves and to our own interests.

In the first place there are not more than two-

thirds as many sheep now, throughout this section, as there were three years since.

Secondly, the wool in market is used up closer than usual at this season of the year, with but little remaining in the hands of producers.

While, thirdly, the large stock of woolen goods with which the country has been flooded, has been gradually worked off, leaving a better demand for newly manufactured goods, so the manufactures will have some encouragement to buy wool in the prospect of selling it when worked up.

The wool growing and *manufacturing* interests should be one, for each depends on the other.

A WOOL GROWER.

Sanbornton Bridge, N. H., Feb., 1869.

THE SEASON IN SOUTHERN MICHIGAN.

January was very warm, and the roads were quite dusty. Some nights froze a little, but thawed out during the day. A sleet came February 1 and 2, so heavy that it was not safe to go into the woods at all; limbs were broken off six inches in diameter. This lasted three days. It has since been so warm that we have doors open as in summer. Hay has dropped from $12 to $8 per ton; wheat from $2.10 to $1.50; pork has risen to $14; money very tight, worth 3 per cent. per month, and not to be had at all times, even on gilt-paper, as it is not here. Hope it will soon be easier.

Hudson, Mich., Feb. 15, 1869. D. M. BRIGGS.

EXPERIMENT WITH SUPERPHOSPHATE.

In reply to an inquiry by "W. S. A.," in the FARMER of Feb. 6, I will say that I planted half an acre to corn, having first prepared the ground alike. Bradley's superphosphate of lime was used, except on four rows, through the piece, which were a fair average of the ground, on which I did not put the phosphate. As the corn came up, and all through the season, I saw a marked superiority in all the piece over the four rows. When I harvested the corn I found the rows on which phosphate was applied to produce three bushels of ears where the others produced only two bushels, and the quality in every respect was superior. I also used the phosphate on fodder corn and potatoes and the result was as satisfactory as on the corn.

I wish now to make the inquiry, whether the "Norway oats" are so far superior to others as are claimed? What is their value as grain, their yield per acre, and are they more or less liable to lodge on the ground than other kinds?

EDWIN HOUSE.

Waitsfield, Vt., Feb. 11, 1869.

YIELD OF NORWAY OATS.

I planted one hundred kernels of Norway oats in two rows one foot apart, and four inches in the row. The greatest product from one kernel was fifty-three stalks, thirty heads, and 6441 kernels.

TIMOTHY WHEELER.

Waterbury Centre, Vt., Feb. 8, 1869.

EXPERIENCE WITH FERTILIZERS.—The special correspondent of the New York *Tribune*, writing from Henry Ward Beecher's farm of thirty-six acres, says:

Mr. Beecher has tried all the phosphates and special fertilizers, but he likes farmyard manure best. Even bone is not of much use with him. From 600 to 1000 loads of manure are put on the place yearly; all that is made is carefully saved, and there are compost heaps of muck and weeds. A good deal of manure is hauled from Peekskill, and considerable quantities of unleached ashes are bought of the farmers at thirteen cents per bushel. When he was asked if the farmers were so ignorant as to sell their ashes at this price, or even at all, he said, "Yes, but *don't print it!*" One who commences with a poor farm must take such fertilizers as he can get.

For the New England Farmer.

AGRICULTURAL AND POLITICAL NEWSPAPERS.

We need a more extensive circulation of Agricultural literature. For instance: I find, upon close examination, that the farmers of Madison take and read three political papers to one devoted to agriculture. Yet the town of Madison is one of the finest farming towns in the State of Maine. The people live almost exclusively by farming.

Do political speakers, political newspapers or political clubs improve the farm or the farmer's mind? My observation leads me to the conclusion that farmers who take more interest in politics than in agriculture are the ones who do not get along the best; and that partizan papers have a tendency to make partizan neighbors. Instances are not uncommon where farmers will not carry their neighbors to town meeting on account of their different political views. Would it not, then, be better to have more agricultural and less political literature circulated among farmers?

This seems to me to be a subject worthy of serious consideration, and this winter a good time to give it a little airing. A farmer can undoubtedly live without an agricultural paper. So also can he live and not grow a sheep, or a hog, or a horse if he keeps oxen, or without oxen if he keeps a horse. Yet good farmers do not believe they can afford to be without sheep, or hogs, or horses, or oxen. *Nor do I believe they can afford to be without an agricultural newspaper any better than without either of the above-mentioned useful animals.*

The day has passed when chance had any hope of contending with science; yet there is more chance farming to-day than scientific farming. I am happy to say, however, that the young men who engage in agriculture for a livelihood, are taking a deep interest in book-farming; but I am sorry to say that their number is small.

It is a notorious fact that the political conventions of the State, the political district and county organizations are largely made up of farmers; and generally by that class of farmers who do not think they can afford to attend State, county and town agricultural conventions or fairs, as they are more commonly called, because they have to pay a small admission fee. But when the committees of the different political organizations call upon these same farmers for funds to prosecute political campaigns, they "come down" with

their "filthy lucre" without a murmur. Does any one suppose they would as freely subscribe to funds to promote agriculture?

I find it much easier to induce a farmer to subscribe to a political than to an agricultural newspaper. Will those farmers who read this article investigate the matter, and report the result of their researches through the FARMER?

D. L. S.

East Madison, Me., Feb., 1869.

REMARKS.—In taking or refusing to take newspapers, as well as in all their other actions, men are moved by motives. What then are the motives which determine the choice or move the will in deciding this question? or, in other words, what's the use of agricultural papers? Many would probably reply that the chief benefit of agricultural papers consists in the fact that they make common stock of individual experience and practice; they tell how the best farmers manage their soils, their stock, their manure; what crops they grow and how they cultivate them; what implements they use, what teams they employ, what markets they find.

All this is important and valuable, but has not the agricultural press a still higher purpose in the promotion of the social interests of farmers? Farmers are becoming a power in the land. Their right to be heard in our State and national councils is recognized. The effects upon their interests of measures of public policy is considered by the law makers of the land. The agricultural paper should therefore become the organ and the advocate of these interests, and the opponent of whatever is calculated to affect them injuriously.

The commercial and manufacturing interests of the country not only recognize the importance of employing the press to advocate and defend their interests, but they patronize it liberally for so doing. "The gods help those who help themselves," and unless farmers recognize this use of agricultural papers can they expect their cause to prosper? The tone of the city press generally on the subject of the renewal of the so-called Reciprocity Treaty shows very conclusively what farmers can expect from papers that are sustained by the commercial and consuming classes. The Boston *Daily Journal*, for instance, has not only steadily advocated the renewal of that treaty, but in a leading editorial of its issue of Feb. 17, headed "Brussels and Belgium," it urged the importance of cheapening food for the crowds that congregate in cities, in a manner that we think must be refreshing to its patrons in the country who are producing this food. In speaking of Belgium, the editor of the *Journal* says:—

She has sent in one year thirty thousand tons of rails to Russia, and while we exclude the *cheap wool from the basin of the La Platte, the plains of Australia and the savannahs of Africa*, by a duty of twelve cents a pound, or a hundred per cent., Belgium admits it free and sends the cloth to New York or Canada to supply our citizens with clothing. It has been the policy of Belgium to keep down the cost of production by *keeping down the cost of food*, clothing and materials. . . . Under great disadvantages, by the superior education, skill and ingenuity of our people, they have already begun to send again their drills and sheetings to Asia and Africa. This trade is capable of indefinite expansion, but to expand it they *must have cheap wool, iron, steel, cheap potatoes, alewives and herring*, of which they are now deprived by war duties, injurious to revenue, and almost prohibitory in their effect on commerce.

Under the present prices of farm produce, which the *Journal* thinks should be reduced, farmers find it difficult to keep their sons and daughters at home; farms in the interior of New England are offered "for less than the buildings and fences cost," and the increase of population is confined to the commercial and manufacturing centres. What, then, would be the effect of lower prices? of the *Journal* writer's wool at 12 cents per pound, of butter at the same price, beef at $3 per 100 pounds, and potatoes at a shilling a bushel? What sort of newspapers, then, should farmers take?

For the New England Farmer.

DISCUSSION ON MAKING SUGAR.

WESTMINSTER, VT., FARMERS' CLUB, Feb. 15, 1869.

Want of room compels us to condense the report furnished by M. W. Davis, Secretary.

N. G. Pierce, Esq.—"Neat and quick" are the watchwords. First I would have tin buckets, if necessary to buy new; but as most have wooden ones, keep them painted, especially the inside, using raw oil and venitian red. Do not attend auctions and buy old musty buckets. I prefer the wooden spout. The bit of half inch, boring three inches deep. I think the amount of sap drawn from the tree, depends more upon the depth of the hole than size. Now if your sap runs through *clean* spouts, into *clean* buckets, conveyed in *clean* holders, boiled in *clean* apparatus, sufficient so as not to need much storage, keeping everything *out* of the sap rather than strain to *get* it out, making it into sugar the same day, (not let your syrup stand or cool, for it turns red) and you have white sugar. I have a heater and one pan, and can boil sap enough for 100 pounds sugar in a day.

Orestus F. Peck.—I tap my trees only when it is a *sap* day. I use ⅞ bit and sumac spout. I consider them the best. I scald them in lime water when done using, to neutralize the acid generated by the absorption of sap, and before using run a hot iron through them which chars them, tending to purify as well as to retard the ingress of the sap to the wood of the spout. I prefer the small bit to the larger, because the hole being smaller does not dry up as readily. I boil my sap into syrup every day, and it is best when boiling to drive it as fast as possible and steady, for if it occasionally cools down it colors. I then strain and let it stand 12 to 24 hours before sugaring off. Then I turn off the syrup from the sediment. In the early part of the sugar season

I put nothing into my syrup to cleanse it. Later in the season, when sap runs a little white from the bucket, I use 3 eggs to 1 pint of skim milk. When testing to ascertain whether done or not (if for caking) in raising the dipper as it runs from it, leaving long hairs I call it done. If for tub not do it near as much. Remove from the fire letting it stand, and stir rapidly, which avoids that glassy appearance seen upon the outside of the cake, in turning immediately into the moulds. To have nice tub sugar, enough should be sugared off at once to fill the tub, for if filled at two or three different times, a glassy coating is formed between each layer which obstructs the draining. When it comes warm weather, turn the tubs bottom upward and from 100 lbs. you can get 70 or 75 lbs. of fine sugar. I see no difference in sugar made from trees standing in lime rock soil or where the peroxyde of iron exists, rendering the soil of a red cast. My apparatus for boiling consists of two pans, two barrels each, and one heater in one arch. My arch is not high enough; it should be 18 to 20 inches above the grate; my heater heats too rapidly and runs over; it is ten feet from mouth of arch to the heater. I would have the arch all the way of a depth. I think my heater increases the boiling one-fourth. I can boil from 5 o'clock in the morning till 10 at night, 16 barrels, or 25 barrels in twenty-four hours.

Mr. N. G. Pierce did not agree with Mr. Peck as to the use of eggs and milk.

S. Peck.—Trees differently located produce different sap.

Henry Floyd.—I would use half-inch bit, boring three to four inches in large trees, using the sumac spout, for I think it the best; the metallic spout is not stiff enough. One reason of black sugar is, much sap is boiled in coarse iron. Boilers should be of fine material and polished to make white sugar.

Sylvester Grout spoke of the dust that is constantly accumulating in sugar houses. Should be floored over head and kept as nice as your kitchen. He thought different sugar-bushes produce different sap, and make different sugar.

T. W. Wiley.—For some ten years, I used three-fourths bit, with two spouts to a bucket, but now use five-eighths bit, one spout, think I can get as much sap. Bore from two to two and a half inches deep. I think the quicker we can get sap into sugar the better. I like to have it strained either at the holder or at the heater. I strain my syrup through a woolen strainer. I prefer syruping down twice a day. I never put anything into syrup to cleanse it. If you put in milk the sugar is apt to sour in hot weather from the particles left in it.

O. Peck.—Two spouts will run as much again as one, and if the tree is good size, you may put two, three, or four buckets to a tree. I knew of a tree that run 16 pailfuls in one day, into ten buckets. I would not use the metallic spout, as it tends to conduct heat from the sun to the sap. Spouts should fit in the bark, and not the wood.

S. Grout.—I intend to tap under a large limb or into a large root when convenient. I think trees make wood faster that are habitually used for sugar trees.

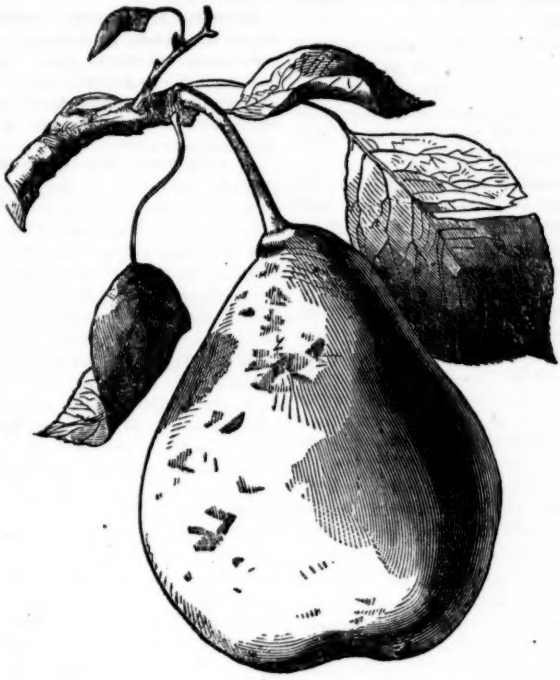
Pierce.—I think in the fore part of the season, a tree should be tapped high, later in the season, tapped low.

F. G. Butler.—Wood never should be kept in the same apartment with the boiling, but in an adjoining one at the mouth of the arch. If kept in the same it gathers dampness, making poor fuel as well as dirt. Should use Post's Patent Spout as it keeps clean.

AN EXCELLENT FERTILIZER.

We advise our readers, those who have farms and gardens to cultivate, to prepare as large a quantity of the fertilizer we suggested and recommended in the April No., Vol. II., of the *Journal*, as they possibly can. It embraces in its composition quite every element required in the growth and maturation of roots and the cereal grains; and it has the advantages of being comparatively cheap and easily prepared. No fertilizer we have yet devised —and we have prepared and experimentad with a large number—affords more certain and satisfactory results than this one; and those who prepared and used it last season are extravagant in their praises of it. It supplies a most desirable dressing for fruit trees and vines. We use no other fertilizer for our grapes; and if any of our friends have had better results in their cultivation than we have, it will afford us pleasure to publish their successes. The method of preparing the fertilizer is as follows:—

Take one barrel of pure, finely ground bone, and mix with it a barrel of good wood ashes; during the mixing, add gradually about three pailfuls of water. The heap may be made upon the floor of an outbuilding, or upon the barn floor; and, by the use of a hoe, the bone and ashes must be thoroughly blended together. The water added is just sufficient to liberate the caustic alkalies, potash, and soda; and these react upon the gelatine of the bone, dissolving the little atoms, forming a kind of soap, and fitting it for plant aliment. It must be used in small quantities, or in about the same way as the so-called superphosphates. A barrel of this mixture is worth two of any of the commercial fertilizers, and the cost will be but about half as much. It remains to be added: if the bone meal and ashes are very dry, four pailfuls of water may be required, but care must be exercised not to have it inconveniently moist. It will be ready for use in a week after it is made. *Pure, raw, finely-ground bone* and the best of ashes should be employed.—*Boston Journal of Chemistry.*



THE TYSON PEAR.

The original tree of this variety of pears grew in Jenkinstown, Pa. The fruit from which our cut was drawn and engraved was selected from an ample basket of the ripened fruit grown in Dorchester. The tree from which the fruit was plucked sprung, we understood, from the first scion set in Massachusetts, cut from the original tree. We found them to be delicious. Mr. Thomas, in the new edition of his *Fruit Culturist*, gives the following description of the Tyson. "Size medium, conic-pyriform, sometimes approaching to obovate; bright yellow, with a reddish brown softly shaded cheek, often some russet; stalk an inch and a fourth long, inserted into a fleshy prominence abruptly contracted from the rounded neck; basin very shallow, even; flesh of fine texture, buttery, very melting; flavor nearly sweet, aromatic, slightly perfumed, excellent. Ripens the last two weeks of summer. Shoots quite dark brown, erect, vigorous. The tree does not come soon into bearing."

THE MICHIGAN AG'L COLLEGE.

A few weeks since we copied as an "agricultural item" a little paragraph to the effect that the President of the Michigan State Agricultural Society condemned the system of instruction pursued at the Agricultural College of that State. We have since seen that address more at length.

After remarking that "our farmers are to a large extent educated, and as a general rule the best educated are the most thrifty and successful," Mr. Beckwith, President of the Society, said, "frequent conversations with men of good judgment in various parts of the State induce me to believe that the time has come when something should be done to rescue the College from the policy which deprives it of public sympathy and support;" that "not more than one in four of the young men who graduate there embark in agricultural pursuits after leaving school," and intimates that "the gen-

eral management or course of study tends to shut out the sons of small farmers or those in limited circumstances," &c.

We have also received a reply to these strictures, in a letter addressed to the Detroit *Advertiser and Tribune*, by T. C. Abbott, President of the College, together with his Annual Report on the state of the College, addressed to the Superintendent of Public Instruction of the State.

In his annual report Presid ent Abbott congratulates the Legislature of Michigan on having adopted a wiser course than many other States in giving the control of the College to a Board of Managers of only eight members. But if the harmony of action on the part of this board, which it is claimed has always existed, has been the result of this small number, are we justified in the conclusion that the want of co-operation on the part of a voluntary association of the farmers of the State, which is popular enough to have received $16,000 during the past year, is owing to the same cause? It is certainly very desirable that there should be no antagonism between the Agricultural Society and the Agricultural College of any State, and we should deem almost any compromise justifiable which might be necessary to secure co-operation between these two bodies.

With no disposition to intermeddle with the controversy which has existed for some years between these two institutions in Michigan, we have gleaned the following facts from the report of the President of the college, for the purpose of showing what this pioneer institution has done, and what it is now doing.

The number of students the past year has been 82, with an average attendance of 80; viz.: in the Senior class 10; Juniors 13; Sophomores 23, and Freshmen 34. There has been no preparatory department the past year. The average age of the Seniors is stated at 21 6-10; Juniors and Sophomores, 20 4-10; and Freshmen, 18 8-10. During the past seven years 34 students have been graduated, 10 of whom received their diplomas at the last commencement—showing an ave rage of four graduates per year for the six years preceding the present.

Of these 24 graduates, 8 are farmers, another owns a farm which he is clearing from his earnings as a teacher, and which he expects to work himself. Four are instructors in other agricultural colleges, and a fifth was for four years a professor in this college, but is now engaged in other pursuits. One graduate is a machinist, one a surveyor, two died in the United States service, and the remaining five are engaged in teaching or other callings not considered industrial. Three of the graduates named as professors have charge of farms, gardens, teams, &c., and should perhaps be classed as farmers. The occupations that will be chosen by the ten graduated this year are not yet known. Many students have taken only a partial course. Of the 82 students, 60 were sons of farmers.

There has been no unruly conduct, no rowdyish noi ses or pranks, or occasion for discipline for such conduct during the year. The students have had free and unwatched access at all times to the ripening grapes, muskmelons, watermelons and other fruits, and no instance of meddling with them has been known.

All the students labor, except when exempt for physical disability. Consequently there is no caste in the college arising from difference in this respect. The regular hours of labor are from half-past one to half-past four each afternoon, Saturdays excepted, when labor is furnished only on request.

The officers of the college work with the students. The professors of agriculture, and horticulture, and of Chemistry are often seen in the college fields and shops, with implements, teams, tools, in almost every variety of labor. The President says:—"I believe there is not an officer of the college who has not been used from childhood to labor in gardens and orchards, and to have the care of horses and cattle, and all but two of them were reared on farms." Lectures are not infrequently given in the field, or yards where the stock is kept. The students work cheerfully, as most of them were accustomed to labor before entering the college. Good workers receive from 7 to 7½ cents an hour. The great variety in the labors required, and their relation to their studies, serve to interest them, and they often manifest a strong interest in furthering the work to be done. *The best scholars are almost always the best workers.*

The farm, gardens and lawns cover an area of 676 acres; the apple orchard 16 acres; four farm fields 67 acres; pasture 20, and nearly 80 acres contain the lawn, buildings, gardens, &c. The soil is exceedingly various. Additional buildings are needed for the students and for the farm.

This college went into operation in 1857, long before the congressional grant; has not as yet received any income from that grant, but has been supported by legislative appropriations. Its share of public lands is 240,000 acres. The subject of their disposition is now before the legislature. We are also told that the House of Representatives of the Legislature now in session have a Committee on the Agricultural College. A majority are said to be farmers, and the chairman to have been raised on a farm. This committee lately made a report to the House *highly commending the College.*

HEREFORDS IN MAINE.

Mr. Sanford Howard, of Lansing, Mich., having noticed the purchase by Messrs. Burleigh and Shores, of Fairfield, of Mr. Cochrane's herd of Herefords, says in the *Maine Farmer*:—

I think the farmers of your State may be congratulated on this acquisition. In some

sections of Maine, considerable experience has already been had with the Herefords,—I think they have generally done well. Indeed, it appears to me that their characteristics render them specially adapted to the purposes for which cattle are largely used in the State. For working oxen, they stand in the first class, possessing nearly the activity of the Devon, with at least as good hardiness, and with weight enough for any kind of labor. When they have served their time at the yoke, they will fatten very easily, and produce the first quality of beef. If not wanted for work, they will fatten at as early an age as any cattle, if reared and treated in the same way. For milk, they are as good in point of quantity, as any breed having an equal tendency to fatten, and their milk is of extra richness.

Mr. Cochrane's stock, through the herd of Fred Wm. Stone, Esq., of Guelph, Ontario, traces to the herds of those eminent English breeders, the late Lord Berwick and Lord Bateman, and thence to herds which were famous more than a hundred years ago. Before Lord Berwick's death I spent a day with much satisfaction, in examining his three hundred Herefords.

The bull Compton Lad is an animal of extraordinary symmetry, very heavy in proportion to his bulk, having very thick flesh of excellent quality, laid evenly over his frame, forming such a carcase of beef as butchers who cater to epicurean palates like to obtain. At the same time, all his points indicate health, a strong constitution, and great muscular strength. I shall expect that oxen bred from him and the right kind of cows, will be able to perform as much work, either in the ploughfield or "logging swamp," as has ever been done by any cattle.

Many of the cows and heifers of the herd are very fine, and those who see them in the condition in which they left Mr. Cochrane's farm, must be satisfied that they are able to carry *weight on their backs* to a remarkable degree.

SCAB IN SHEEP.

In connection with our remarks last week in reply to an inquiry by Mr. Jetter of Bradford, Mass., for a remedy for the Scab in sheep, we copy the following from the recently published book on "The Diseases of Sheep," by Dr. H. Clok:—

Six pounds of burnt, unslacked lime must be slacked by sprinkling water upon it in a proper vessel, to which six pounds of potash and ten quarts of water are to be added; this mixture must be boiled and well stirred for about an hour. When this lye has been boiled sufficiently, eight pounds of pine oil and two quarts of tar must be added and well stirred into the same. In another and larger vessel twenty pounds of tobacco-leaves must be boiled in one hundred and thirty quarts of water for two or three hours, after which this decoction is to be thrown into a large tub (the tobacco-leaves are thrown away as worthless). To this decoction the above-described lye is to be added, and both must be well stirred and mixed together. The remedy is then ready, the quantity being sufficient for one hundred sheep.

It must be applied in the following manner: The sheep must be laid sideways upon a board of sufficient size, one assistant holding all four legs of the animal, another assistant pressing its head down and parting the wool lengthwise from the ear to the upper part of the hind leg, the parting line remaining about three or four inches distant along the middle of the back. Another assistant applies the lye or wash (which must be of a temperature of about 110° or 120° Fahrenheit, or warm enough to suffer the hand to touch the same) by means of a sponge or bottle along the parting line, so that the fluid will flow into the separated fleece. The animal must then be turned over and the lye applied in the same manner upon the other side. After this the animal must be put upon its feet, the wool parted straight along the middle of the back, beginning at the neck and ending at the tail.

A quart of lye is sufficient for each unshorn sheep. The part of the skin covered with scurf is to be cleaned by means of a dull knife or by the finger nails, and separately supplied with said lye. As the wash or bath adheres to the skin in a uniform manner, there is no necessity of further rubbing the same into the fleece.

In case the disease is of an obstinate character, the remedy must be applied again in the same manner in about eight or ten days, whereby a greater security against further damage is obtained.

Such a treatment requires very little time; from five hundred to six hundred animals can be washed in one of the shortest winter days. The lye should be kept sufficiently warm during the operation. This lye recommends itself not only by its efficiency, but also by its cheapness, the outlay being very small in comparison with the value of its benefits.

SANBORN HILL.

Some of our readers may perhaps remember a suggestion made last year by Mr. John L. Sanborn that the name of this locality, in West Springfield, N. H., be changed to Sugar Hill. The reasons assigned, were the fact that most of the Sanborns by whom the hill was first settled had left, and that five of the eleven families that now occupy the old farms made last year 80,154 pounds of sugar. Believing that the process of manufacture adopted by the experienced sugar makers of "Sugar"

Hill, will be interesting to all who own a sugar orchard, we copy the following article from the *Mirror and Farmer*, written by "J. L. S.:"—

In reply to "Querist" in regard to cleansing molasses hogsheads for sap holders, I would say that I never found any way to make them as good as holders made on purpose for sap and never used for anything else.

I keep my buckets and holders in a perfectly dry place when not in use, and never use them for anything but sugar making. When ready to use them in the spring, thoroughly wash and scald them and repeat the process when I take them up.

My way of tapping is to use one-half or five-eighths tapering bit, bore the hole one and one-fourth inches. Have usually used a pine spout whittled slant so it will not go into the tree so as to cover any of the grains. Have a holder with two heads to gather the sap in, with a cover on top to turn the sap in. Draw to camp with oxen. Use sheet iron pans set in a brick arch, one pan set in front of the other. The front pan has an iron grate under it, so all the ashes fall out of the way. Use wood four or five feet long Let sap run into front pan and dip into back pan as fast as needed. Boil until I get about six barrels into the back pan, then let it boil gently until it is the right thickness, what you would call thin molasses; then strain in holders made for the purpose, that will hold ten or twelve gallons, made about two and one-half feet high. Let it set over night, turn it off carefully the next day and do it down to your liking. Do it off in a flat pan made for the purpose. One that will hold eight gallons is large enough for 200 trees.

For the New England Farmer.

FARMERS' CONVENTIONS.

The meetings which have recently been held in Massachusetts, New Hampshire and Maine for the purpose of promoting the progress of American agriculture have awakened a deep interest in the subject, not only in the minds of those present, but I trust also among the multitudes who have read the reports of those gatherings. It has not been my privilege to attend either of those meetings; but it seems to me that no plan has yet been devised to advance agricultural interests that will at all compare with it in its general utility to the farming community.

Our State and county societies at their fall exhibitions have done much to stimulate farmers in the way of raising good stock, vegetables, fruits, &c., but these conventions embrace a much wider and deeper range of objects, and are calculated, if rightly improved, to meet every want of the farmer, enlightening his path through every step of his progress. Judiciously managed they will serve to remedy in no small degree the inconvenience farmers have so long labored under, of working single handed and alone, and give them advantages which other callings enjoy of combined effort and unity of action.

Agriculture in this country has occupied in some respects an unnatural, dependent position. With a certain class neither farming nor farmers are appreciated as the merits of their calling, or the merits of their own standing and influence in society demand. This must be remedied in great measure by farmers themselves. They must awake, not only to the magnitude of their calling, but to *the magnitude of their power*. They need to come forth from their back-ground retreats, and stand fearlessly in the front, asserting manfully their rights. Their voice should be heard in our legislative halls, and heard in such a way as to be heeded. We need at this moment a general expression from the whole farming interest, on the subject of a Reciprocity Treaty. Not only our wool interest but every farming interest needs to be carefully guarded. This can easily be accomplished when farmers learn to act in concert, and I know of no way to secure this result so effectually as through agricultural conventions.

But it was not my object to write a paper setting forth the good results of these conventions, (this is already well understood;) but to suggest through the columns of the N. E. FARMER the propriety of holding similar conventions, once a year at least, in all our counties; not to interfere with State conventions, but rather as auxiliary to them; not to supercede those county societies now formed, or in any way to interfere with our annual exhibitions, but to make those societies more efficient, and those exhibitions more profitable. Perhaps the same organizations would answer for one, as for the other, and the same officers plan and preside in each.

In most of our small towns, with scattered population, it has been found impracticable to sustain for a great length of time a good farmers' club. These county clubs or conventions would naturally awaken a deeper interest among the masses by bringing out men capable of speaking on the various subjects assigned them. We have in all our counties, intelligent farmers who are qualified to discuss with profit the various questions that would naturally arise at those meetings. Our best farmers would thus be brought together, the best methods of production and cultivation be brought out, and the best plans devised for the mutual good of all. J. F. FRENCH.

North Hampton, N. H., Feb., 1869.

GOOD YIELD.—Mr. A. M. Foster of Calais, Vt., raised the past season, forty-five bushels of wheat on one acre of ground, from two bushels of seed.

Ladies' Department.

LOVE LIGHTENS LABOR.

A good wife rose from her bed one morn,
And thought with a nervous dread
Of the piles of clothes to be washed, and more
Than a dozen mouths to be fed.
There's the meals to get for the men in the field,
And the children to fix away
To school, and the milk to be skimmed and churned;
And all to be done this day.

It had rained in the night, and all the wood
Was wet as it could be;
There were puddings and pies to bake, besides
A loaf of cake for tea.
And the day was hot and her aching head
Throbbed wearily as she said,
"If maidens but knew what good wives know,
They would be in no haste to wed!"

"Jennie, what do you think I told Ben Brown?"
Called the farmer from the well;
And a flush crept up his bronzed brow,
And his eyes half bashfully fell.
"It was this," he said, and coming near,
He smiled, and stooping down,
Kissed her cheek—"'Twas this, that you were the best,
And the dearest wife in town!"

The farmer went back to the field, and the wife
In a smiling and absent way,
Sang snatches of tender little songs
She'd not sung for many a day.
And the pain in her head was gone, and the clothes
Were white as the foam of the sea;
Her bread was light, and her butter was sweet,
And as golden as it could be.

"Just think," the children all called in a breath,
"Tom Wood has run off to sea!
He wouldn't, I know, if he only had
As happy a home as we."
The night came down, and the goodwife smiled
To herself, as she softly said:—
"'Tis so sweet to labor for those we love,
It's not strange that maids will wed!"

HOUSEHOLD ECONOMY.

CONTRIBUTED FOR THE NEW ENGLAND FARMER.

A correspondent desires a receipt for making

Lemon Pie.

MESSRS. EDITORS:—It was my good fortune some years ago to eat, what was called, a Yankee lemon pie. It was delicious, and I have always regretted that I did not obtain the recipe, and in looking over your list of receipts for all sorts of nice things, it occurred to me that you might be able to obtain what I desire. This pie was very delicious, as I said, but very simple in *construction*. I know it contained apples (chopped), molasses and other good things, but this is all I know. Please make enquiries through your paper and oblige A READER AND SUBSCRIBER.

Irvington, N. Y.

CODFISH.—With the advent of the cold of winter, codfish comes into season. There are those who like this fish during the warmer months; but commend us to a deep sea-cod, caught in cold weather—one which, when cooked, exhibits the flesh separating from the bone in solid flakes that retain their white curvatures as they are distributed by the carver. Even the very scraps left of the cod may be utilized, and made a most savory dish. Pick the flakes of fish away from the bones and skin before they get cold. When wanted, put them into a stewpan with what is left of the sauce (oyster, anchovy, or other) with which they were originally served. Add a dozen or more fresh oysters and their liquor. If those are not enough to moisten the fish (and it only requires to be just moistened), make up the deficiency with a spoonful or two of melted butter. Warm very carefully over a gentle fire; when once hot through set it aside. Surround your dish (previously well-heated) with a wall of delicate mashed potatoes, so as to leave a hollow in the middle. In this hollow deposit your warmed-up fish, with its sauce. Sprinkle, over the fish only, grated bread crumbs or biscuit raspings; set it for a few minutes in a sharp oven or under a salamander; and, when nicely browned on the top, serve.

Fried cod is not sufficiently used in this country. Slices two inches thick, done with eggs and crumbs, and fried a light brown, in plenty of fat, are delicious.

FISH CHOWDER.—The best fish for chowder are haddock and striped bass. Cut the fish in pieces an inch thick and two inches square; take six or eight slices of salt pork; put them in the bottom of an iron pot, and fry them till crisp. Take out the pork, leaving the fat; chop the pork fine. Put in the pot a layer of fish, layer of split crackers, some of the chopped pork, a little black and red pepper, a little chopped onion, then another layer of fish, split crackers and seasoning. This do till you have used your fish. Then just cover the fish with water, and stew slowly till it is tender; thicken the gravy with pounded cracker; add catsup if you like. Boil up the gravy once, and pour over the fish; squeeze in the juice of a lemon. Add salt if necessary.

COOKING DRIED APPLES.—Wash sour dried apples, being careful to do it quickly, and put in a porcelain kettle. Have ready a tea-kettle of boiling water, and pour over them, filling your preserve kettle. Cover closely, and as they require more water add boiling. When they are cooked tender, ready to pour out, have about the proportion of three pints of juice to three quarts of the apple. If they are boiled too dry they will be strong and unpleasant, if too much is left in it—insipid. Do not sweeten while warm, but as you wish them for the table—a tablespoonful of sugar to a vegetable dish full of the sauce. Dried apples, in this fruit-growing country, are not usually counted among the luxuries of the table, but in this year of scarcity they will be found exceedingly palatable, prepared in the above manner—having much the flavor of the fresh fruit. If you wish them "extra" nice, add grated lemon peel, from a lemon partly dried, at the same time with the sugar. For pies, sift as pumpkins, adding small bits of lemon or orange peel.—*Germantown Telegraph.*

APPLE ROLL OR APPLE PUDDING.—Make a paste with one-fourth of a pound of butter to one of flour mixed with water, not very stiff. Peel and slice rather thick, tart apples; roll the paste very thin, or as thin as the bottom crust of a pie, spread the apples on a crust so as to cover it, dredge on a little flour and roll it as tightly as possible. Cut the ends even and put it in the steamer, or wrap it in a thick cloth and boil it. It will take one hour steady cooking. Serve with butter and sugar. Cut it in thin slices from the end when serving.—*Western Rural.*

DELICIOUS BREAKFAST CAKE.—Sweet milk one quart, one and a quarter pints of fine sifted Indian meal, two eggs, and a little salt; bake forty minutes in a quick oven, bring to the table while hot, and serve with butter.

GOOD BREAKFAST ROLLS.—A hot roll for breakfast is a most toothsome article of diet, when made right, otherwise they are only fit for the pigs. I make mine as follows, and I think them hard to beat:—Take two quarts of flour, make a hole in it and pour in one pint of curd milk that has been boiled with one cup of butter melted in it, and half a cup of good yeast. Let it stand without mixing two or three hours; then salt and knead it and let it rise again in the pans before baking. Bake in a quick oven about fifteen minutes.—*Germantown Telegraph.*

STEWED OYSTERS.—We take from an exchange the following, which is worthy of trial:

We suppose that nine out of ten housekeepers will contradict us point blank in a statement that nine out of ten of them do not know how to stew a dish of oysters. By the ordinary routine that nearly every one follows, either the oysters are stewed and shriveled out of all semblance of themselves in shape, size and flavor, or else the soup and "thickening" has a raw taste that spoils it. Here is the right method. Try it once, and we'll warrant you won't need telling the second time. Pick the oysters out of the juice with a fork, as dry as possible; stew the juice, thickening milk or water, of which the soup is to be made, until thoroughly cooked; then drop the oysters in, and just as the cooled soup begins to show signs of simmering, empty out altogether, and you will have rich soup and plump oysters, luscious enough to make you think you never tasted real oysters before.

PINS.

In the thorn, Nature has provided man with the pattern and the first idea of the pin. When Adam and Eve, after their fall, but before their expulsion from Eden, made themselves aprons of fig-trees, they doubtless used the thorn in the construction of their first garments. In the days of innocence there was no use for pins; and it was probably this fact which caused Byron to describe Juan when, metamorphosed into Juanna, he or she is unrobing in the seraglio, as

> "Pricking her fingers with those cursed pins,
> Which surely were invented for our sins,
> Making a woman like a porcupine—
> Not to be rashly touched."

The pins thus anathematized by the poet are, however, comparatively a modern invention. In all the records which we have of man's past history we find evidence that articles for fastening clothes always existed, but very unlike the present. In the museums which have been formed out of the ruins of Herculaneum and Pompeii, or Uriconium in England, we find skewers of bone, of brass, of silver, of gold, which were used for this purpose. In the representations of the life of the people found in the Egyptian hieroglyphics we discern the means which they employed for like necessary purpose; but nowhere do we meet with a modern pin. In Strutt's illustrations we find ribbons, loop-holes, laces with points and tags, clasps, hooks and eyes, of every form, size and variety of use, and often turned to very extraordinary and surprising account in completing the toilette of the ancient belle and adornment of the ancient beau. The modern pin would have been of little use in sustaining that towering head-dress, in fastening that wonderful cloak, in keeping up those curiously slashed tunics, or in retaining the stiff uprightness of that extraordinary ruff. After pins came into use these eccentricities of costume and fashion were destined to give place to other fashions, in which, perhaps, the modern pin has played tricks as fantastic as its many substitutes in the olden time.

History tells us that iron-wire pins were first introduced into England in the year 1460. The finer examples of brass manufacture required a queen to procure them. They were brought from France by the beautiful Catharine Howard, one of his wives whom the "great" Henry VIII. beheaded. But though introduced by a queen, and doubtless at first an article exclusively applied to aristocratic uses, they soon became a measure of value for things not valued at all. "Not worth a pin" is a proverb which we find in use soon after their introduction. Thomas Tusser, who wrote about 1550, writing of a not very reputable character, says:

> "His fetch is to flatter, to get what he can,
> His purpose once gotten, a pin for thee then."

And Shakespeare makes Hamlet show his utter indifference to life by saying:

> "I do not set my life at a pin's fee."

At the present time millions of these useful articles are wasted in a year.

We find pins first mentioned as an article of commerce in a statute of 1483. From a law passed in the reign of Henry VIII. we meet with some specific description of the kind of pins made—at least, of what they ought to have been. For instance, it is declared to be the will of the Legislature that "no person should put to sale any pins but only such as shall be double-headed, and have the heads soldered fast to the shanks of the pins, well smoothed, the shanks well shapen, the points well and round filed, canted and sharpened." A pin possessing these qualities would not be a bad pin even now.

WOMAN.

In a recent speech Mr. Gladstone drew a distinction between the word womanly and womanish. Womanly is almost a reverential epithet. It implies goodness, tenderness, fidelity. "Unwomanly rags" was the strongest phrase Hood could find for expressing a garb which unsexed its wearer. An unwomanly woman means a monstrosity; while true womanly pity, or real womanly sympathy, is a something which goes straight to the heart of all who have suffered, or are suffering. To be womanly is consistent with talent and genius, though there are many clever women whose womanliness is not preeminent. In short, to be womanly should be the first grace of woman; and the epithet, if applied to men, as it is in rare instances, and under circumstances which are exceptional, conveys an impression of goodness of heart, of a nature unspotted by the world, and of trustworthiness unsullied and complete. Womanish is the reverse of all this. It conveys the Oriental or brute notion of women: puppets, coy, frightened, useless, and without soul or brain—creatures to be used as playthings by the superior animal, and to be thrown aside—beings whose humanity is devoid of all that makes humanity holy; such are the womanish women of the sensualists of the East—such is the contemptuous meaning the adjective bears here. To speak of an Englishman as womanish is to hold him up to the bitterest contempt.

Youths' Department.

From the Riverside Magazine.

"TELL ME A STORY."

A little girl laid her doll to sleep;
Covered her open eyes from sight:
"My dolly must very quiet keep,"
She said; "I'm playing that it's night."

Then close to her mother's side she came,
Saying, with pleading voice and look,—
"Tell me a story, won't you, please?
A story that isn't in any book."

The mother smiled, and her needle drew
Slower a moment: "Let me see;"
Then, backward and forward, through and through,
The needle glanced: "What shall it be?"

"O let it be any thing, mother dear!
Something very pretty and nice;
Something I never have heard before;
Something short: you can tell it twice."

The mother shook her head, and the smile
Broke in a merry laugh, "You ask
For 'any thing,' yet it seems," she said,
"You really set me quite a task."

Did you ever hear of the charmed lake?
The frozen duck, and the frozen drake?
The frozen trees that grew by its side?
The frozen king, and the waiting bride?

The little boy, who, living alone
In a little hut of dull gray stone,
Strolled into the woods one summer day,
And met with a merry woodland fay,
Who all in a laughing whisper, spake
The hidden charm of the frozen lake?

How the little boy, with courage true,
Did whatsoever there was to do;
Killed a great giant, a lion slew;
Twice seventeen riddles guessed or knew:
Long sought a fountain that rippled far;
Stole a stray beam from a fallen star;
Mounted a ladder that reached the sky;
Seized an eagle that, hurrying by,
Carryed him close to the burning sun,
Where finding, at last, his labors done,
He dropped at once with the burning key
Before the king on his bended knee?

Lo! wide flew the frozen portals wide:
'Arise!' cried the king; 'uncharmed, the bride
Awaits the one from icy thrall
With the burning key has freed us all!'

Now happily long, in pomp and state,
The brave boy lives with his lovely mate.
For, once on a time, the merry king
Melted away to a bubbling spring;
The glittering crown that graced his head,
By the little boy was worn instead."

Into her mother's face with a sigh,—
A sigh of pleasure, not of pain,—
The little girl looked with kindling eye,
"Tell me the story once again!"

THE TROUT, THE CAT, AND THE FOX.

A FABLE.

A fine, full-grown trout had for some time kept his station in a clear stream; when, one morning, a cat, extravagantly fond of fish, as cats are wont to be, caught a glimpse of him, as he glided from beneath an overhanging part of the bank, toward the middle of the river; and with this glimpse, she resolved to spare no pains to capture him. As she sat on the bank waiting for the return of the fish, and laying a plan for her enterprise, a fox came up, and, saluting her, said, "Your servant, 'Mrs. Puss, a pleasant place this for taking the morning air; and a notable place for fish, eh!" "Good-morning, Mr. Reynard," replied the cat; "the place is, as you say, pleasant enough. As for fish, you can judge for yourself whether there are any in this part of the river. I do not deny that near the falls, about four miles from here, some very fine salmon and other fish also are to be found." At this moment, very inappositely for the cat's hint, the trout made his appearance; and the fox, looking significantly at her, said, "The falls, madam! perhaps this fine trout is on his way thither. It may be that you would like the walk; allow me the pleasure of accompanying you?" "I thank you, sir," replied the cat, "but I am not disposed to walk so far at present. Indeed, I hardly know whether I am quite well; I think I will rest myself a little, and then return home." "Whatever you may determine," rejoined the fox, "I hope to be permitted to enjoy your society and conversation; and possibly I may have the great gratification of preventing the tedium which, were you left alone, your indisposition might produce." In speaking thus, the crafty fox had no doubt that the only indisposition which the cat was suffering, was an unwillingness to allow him a share of her booty; and he was determined that, so far as management could go, she should catch no fish that day without his being a party to the transaction. As the trout still continued in sight, he began to commend his shape and color; and the cat, seeing no way of getting rid of him, finally agreed that they should jointly try their skill and divide the spoil. Upon this compact, they both went actively to work.

They agreed first to try the following device. A small knob of earth, covered with rushes, stood in the water close to the bank. Both the fishers were to crouch behind these rushes; the fox was to move the water very gently with the end of his long brush, and withdraw it so soon as the trout's attention should have been drawn to that point; and the cat was to hold her right paw underneath, and be ready, so soon as the fish should come over it, to throw him out on the bank. No sooner was the execution of this device commenced, than it seemed likely to succeed. The trout soon noticed the movement on the water, and glided quickly toward the point where it was made; but when he had arrived within about twice his own length of it, he stopped, and

then backed toward the middle of the river. Several times this manœuvre was repeated, and always with the same result, until the tricky pair were convinced that they must try some other scheme.

It so happened that whilst they were considering what they should do next, the fox espied a small piece of meat, when it was agreed, that he should tear this into little bits, and throw them into the stream above where they then were; that the cat should wait, crouched behind a tuft of grass, to dash into the river, and seize the trout, if he should come to take any piece of meat floating near the bank; and that the fox should, on the first movement of the cat, return and give his help. This scheme was put into practice, but with no better success than the other. The trout came and took the pieces of meat which had floated farthest off from the bank, but to those which floated near, he seemed to pay no attention. As he rose to take the last, he put his mouth out of the water, and said, "To other travellers with these petty tricks: here we are 'wide awake as a black fish,' and are not to be caught with bits and scraps, like so many silly gudgeons!" As the trout went down, the fox said, in an undertone, "Say you so, my fine fellow? we may, perhaps, make a *gudgeon* of you yet!" Then turning to the cat, he proposed to her a new scheme, in the following terms:

"I have a scheme to propose which cannot, I am persuaded, fail of succeeding, if you will lend your talents and skill for the execution of it. As I crossed the bridge, a little way above, I saw the dead body of a small dog, and near it a flat piece of wood rather longer than your person. Now, let us throw the dead dog into the river, and give the trout time to examine it; then let us put the piece of wood into the water, and do you set yourself upon it, so that it will be lengthwise under you, and your mouth may lean over one edge, and your tail hang in the water as if you were dead. The trout, no doubt, will come up to you, when you may seize him, and paddle to the bank with him, where I will be in waiting to help you land the prey." The scheme pleased the cat so much, that, in spite of her repugnance to the wetting which it promised her, she resolved to act the part which the cunning fox had assigned to her. They first threw the dead dog into the river, and, going down the stream, they soon had the satisfaction to see the trout glide up close to it and examine it. They then returned to the bridge, and put the piece of wood into the water, and the cat, having placed herself on it, and taken a posture as if she were dead, was soon carried down by the current to where the trout was. Apparently without the least suspicion, he came up close to the cat's head, and she, seizing him by one of his gills, held him in spite of all his struggles. The task of regaining the bank still had to be performed, and this was no small difficulty, for the trout struggled so hard, and the business of navigation was so new to the cat, that not without great labor and fatigue did she reach the place where the fox was waiting for her. As one end of the board struck the bank, the fox put his right fore-paw upon it, then seizing the fish near the tail, as the cat let it go, he gave the board a violent push which sent it toward the middle of the stream, and instantly ran off with the trout in his mouth, toward the bridge.

It so happened that after the fox had quitted the bridge the last time, an otter had come there to watch for fish, and he, seeing the trout in the fox's mouth, rushed toward him, and compelled him to drop the fish, and put himself on the defensive. It had also happened that this otter had been seen in an earlier part of the day, and that notice of him had been given to the farmer to whom the cat belonged, and who had more than once declared that if ever he found her fishing again, she should be thrown into the river with a stone tied to her neck. The moment the farmer heard of the otter, he took his gun, and, followed by a laborer and two strong dogs, went toward the river, where he arrived just as the cat, exhausted by the fatigue of her second voyage, was crawling up the bank. Immediately he ordered the laborer to put the sentence of drowning in execution; then, followed by his dogs, he arrived near the bridge just as the fox and the otter were about to join battle. Instantly the dogs set on the fox and tore him to pieces; and the farmer, shooting the otter dead on the spot, possessed himself of the trout, which had thus served to detain first one, then the other of his destroyers, till a severe punishment had overtaken each of them.

MORAL.

The inexperienced are never so much in danger of being deceived and hurt, as when they think themselves a match for the crafty, and suppose that they have penetrated their designs and seen through all their stratagems. As to the crafty, they are ever in danger, either of being overreached one by another, or of falling in a hurry into some snare of their own, where, as commonly happens, should they be caught, they are treated with a full measure of severity.—*Appleton's Juvenile Annual.*